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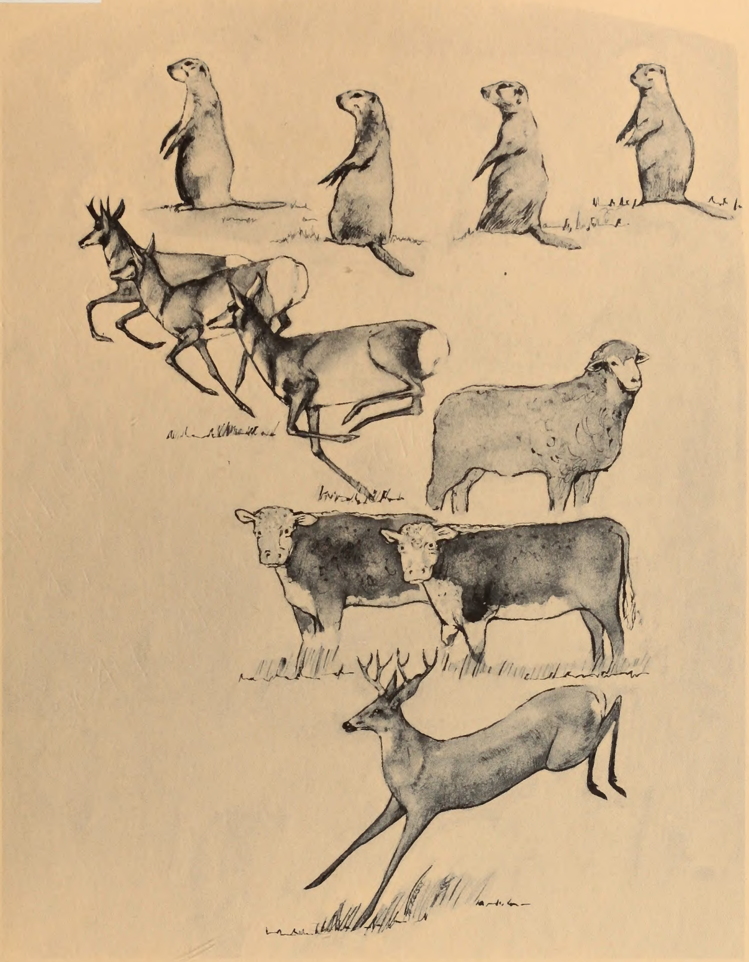

PARKER MOUNTAIN GRAZING MANAGEMENT

FINAL ENVIRONMENTAL IMPACT STATEMENT
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

DEPARTMENT OF THE INTERIOR

FINAL

ENVIRONMENTAL IMPACT STATEMENT

[illegible] MOUNTAIN

GRAZING [illegible]

[illegible]

Prepared by

BUREAU OF LAND MANAGEMENT
DEPARTMENT OF THE INTERIOR

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DEPARTMENT OF THE INTERIOR

FINAL
ENVIRONMENTAL IMPACT STATEMENT
PARKER MOUNTAIN
GRAZING MANAGEMENT

(To Be Used With The Draft)

Prepared by

BUREAU OF LAND MANAGEMENT
DEPARTMENT OF THE INTERIOR

Ed Hastey
Associate Director, Bureau of Land Management

SUMMARY

( ) Draft (X) Final Environmental Statement

Department of the Interior, Bureau of Land Management

1. Type of Action (X) Administrative ( ) Legislative

2. Brief Description of Action: The Parker Mountain Planning Unit encompasses 213,057 acres of public land in Wayne County, Utah.

The proposed action is to initially allocate the following animal unit months (AUMs) of forage: 11,180 for livestock; 1,927 for deer; 406 for elk; and 617 for antelope. In 15 to 20 years, the proposed allocation of AUMs would be: 11,556 livestock, 2,312 for deer, 406 for elk, and 617 for antelope.

The proposed action would 1) reserve two allotments for big game use; 2) continue existing grazing on 15 allotments; 3) combine five allotments and implement rest seasonal grazing; 4) reduce grazing use by approximately 56 percent (1,431 AUMs) on 20 allotments, 5) change season of use on one allotment.

Developments proposed include: 16 miles of water pipeline with nine water troughs; construction of four new reservoirs and modification of 30 existing reservoirs; 15 miles of fence with one cattle guard; chaining and seeding of 4,800 acres of pinyon-juniper and big sagebrush; and construction of three study exclosures.

3. Summary of Environmental Impacts: Vegetation ground cover, key species, composition, and condition are expected to improve on 87,000 acres, but may decline on 127,000 acres. Forage production would increase from 15,939 AUMs to 16,720 AUMs. Forage would be provided for 827 more deer than the current 1,103 animals. Elk and antelope numbers would not change. Livestock grazing allocations would be reduced from 12,997 animal unit months (AUMs) to 11,180 AUMs (14 percent reduction) actual grazing use would be increased from 8,285 to 11,180 AUMs (35 percent increase). Fifty-six of the 99 livestock operators would be affected by the reductions.

4. Alternatives Considered Are: 1) continuation of present grazing management and level of allocation; 2) maximum constraints on livestock grazing; 3) continue existing management with a 50 percent reduction from the proposed livestock allocation; 4) elimination of livestock grazing; and 5) adjustment of use.

5. Comments Were Requested From the Following: (See Attachment).

6. Date Draft Statement Made Available to EPA and the Public: July 6, 1979

ATTACHMENT

Comments on the Draft Environmental Statement were requested from the following agencies, interest groups, and individuals. A Public Hearing was held on August 16, 1979.

1. Federal Agencies

   - Department of Agriculture
     - Agricultural Stabilization and Conservation Service
     - Forest Service
     - Soil Conservation Service
   - Department of the Interior
     - Geological Survey
     - Fish and Wildlife Service
     - Bureau of Indian Affairs
     - Bureau of Mines
     - Bureau of Reclamation
     - Heritage Conservation and Recreation Service
     - National Park Service
       - Capitol Reef National Park
     - Office of the Solicitor
   - Department of Commerce
   - Advisory Council on Historic Preservation
   - Environmental Protection Agency

2. State Agencies and Entities

   - State of Utah
     - Clearing House (A-95)
     - Department of Agriculture
     - Department of Natural Resources
     - Division of Lands
     - Division of Wildlife Resources
   - University of Utah
   - Utah State University

3. Local Agencies

   - Six County Commissioners Organization
   - Wayne County Commission

4. Non-government Organizations

   - Ada County Fish and Game League
   - Audubon Society
   - Brigham Young University
   - Common Cause
   - Council on Utah Resources
   - Defenders of the Outdoor Heritage
   - Defenders of Wildlife
   - Enchanted Wilderness Association
   - Environmental Action
   - Environmental Awareness

Environmental Defense Fund
Friends of the Earth
Good Earth
Izaak Walton
League League of Women Voters
National Council of Public Land Users
National Parks and Recreation Association
National Stock Grower's Association
National Wildlife Federation
Natural Resources Defense Council
Nature Conservancy
Nevada Outdoor Recreation
Association Oregon Environmental Council
Pacific Legal Foundation
Pro-Utah, Inc.
Public Lands Council
Rocky Mountain Center on Environment
Rocky Mountain Sportsmen Association
Save Our Canyons Committee
Sierra Club
Society for Range Management
The Wilderness Society
The Wildlife Society
Utah Cattlemen's Association
Utah Council, Trout Unlimited
Utah Environment Center
Utah Farm Bureau
Utah Nature Study Society
Utah Sportsmen Association
Utah Archaeological Society
Utah Wildlife and Outdoor Recreation Federation
Utah Wool Grower's Association
Women's Conservation Council of Utah

5. Congressional

Utah Delegation

6. Interested Individuals

Copies of this final environmental impact statement will be available for public inspection at the Bureau of Land Management Offices listed below:

Washington Office of Public Affairs
18th and C Street, N.W.
Washington, D.C. 20240
Phone: (202) 343-4151

Utah State Office
University Club Building
136 East South Temple
Salt Lake City, Utah 84111
Phone: (801) 524-4257

Richfield District Office
150 East 900 North
Richfield, Utah 84701
Phone: (801) 896-8221

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CHAPTER 9

CONSULTATION AND COORDINATION

CHAPTER 9
CONSULTATION AND COORDINATION

A. INTRODUCTION

The Draft Parker Mountain Grazing Management Environmental Impact Statement was released to the public on July 11, 1979. A formal public hearing concerning the draft environmental impact statement (DEIS) was held in Loa, Utah on August 16, 1979. The 45-day public review period ended on August 27, 1979.

The testimony transcripts from the public hearing and comments received in letters during public review period identified parts of the DEIS that needed correction, clarification, or expansion. Most information in the draft is still accurate and complete, and a complete reprinting of the draft statement is not warranted. The Final Parker Mountain Grazing Management Environmental Impact Statement includes new information, corrections, and responses to specific comments. The Final Environmental Impact Statement must therefore be used in conjunction with the draft for a complete display of information and analysis.

The final statement is an expansion of Chapter 9 of the DEIS. Within Chapter 9, Part F "Public Comments on the Draft," is arranged by comment followed by response. Part F is followed by an addendum, "Text Changes in the Draft," containing errata sheets and the pages on which changes have been made. It includes all changes in text resulting from public comments or internal reevaluation. The text additions and changes are underlined and an arrow ◀ marks points in the text where deletions were made.

B. HISTORY OF COORDINATION EFFORTS

Management recommendations for the Parker Mountain Planning Unit in Wayne County were presented in a public meeting held in Loa, Utah on July 19, 1978. The following were invited to the meeting by letter: Congressional delegation; federal agencies (including Fishlake and Dixie National Forests, Capitol Reef National Park, ASCS County Committee, and Soil Conservation Service); state agencies; local government; interest groups; and the general public. A press release announcing the public meeting was also issued to local and daily newspapers, radio stations, and television stations. Public reaction to the management recommendations was solicited at the meeting.

C. COORDINATION IN DEVELOPMENT OF THE PROPOSAL

Information compiled during the initial stages of statement preparation indicated that changes in the original planning recommendations were necessary. The new developments and changes in planning were presented to the Six County Commissioners Organization, Wayne County Commission, and the Central and Southern Utah Farm Bureau on May 16, 1979. A public meeting followed on May 24 in Loa at which all six components of the proposal as well as alternative actions were presented. All organizations and individuals who were invited to the July 19, 1978 meeting at Loa received notification of the second public meeting. Press releases were again issued to local and daily newspapers, radio stations, and television stations. This meeting was attended by approximately 40 people representing themselves individually or those organizations and agencies listed below:

Wayne County Farm Bureau
Wayne County Commission
Utah Division of State Lands
Utah Division of Wildlife Resources
Soil Conservation Service
U.S. Forest Service
Bureau of Land Management

D. CONSULTATION AND COORDINATION IN PREPARATION OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

The Parker Mountain Environmental Impact Statement team was organized in March, 1979, at the Bureau of Land Management District Office in Richfield, Utah. The interdisciplinary team consisted of specialists in wildlife, range, water resources, recreation, botany, soils, geology, cultural resources, and socioeconomics. The following sections summarize the consultation and coordination carried out by the team specialists in the course of analyzing the proposal.

1. Federal Contacts

The following are the contacts initiated and actions completed in preparation of the draft statement. Comments received from these agencies were considered in preparation of the statement.

Agency	Nature of Contact	Response	Action Taken
U.S. Forest Service	Presented proposal.	BLM need to obtain cooperative agreement for water for the Seven-Mile Allotment. The Loa District Ranger indicated that Forest Service may cooperate in a grazing plan during development if time could be shortened.	None to date.
U.S. Fish and Wildlife Service	Informal and formal consulation initiated as required under Section 7 of the Endangered Species Act.	FWS will become involved formally because it has been determined there would be a possible impact to endangered species.	Formal biological opinion received. See Letter A.
Soil Conservation Service	Proposal described and data assistance requested.	Yes	Provided data assistance

LETTER A

United States Department of the Interior
FISH AND WILDLIFE SERVICE

MAILING ADDRESS:
Post Office Box 25486
Denver Federal Center
Denver, Colorado 80225

STREET LOCATION:
134 Union Blvd.
Lakewood, Colorado 80228

IN REPLY REFER TO
FA/SE/BLM--Parker Mtn.
Grazing EIS (6-5-79-F-258)

SEP 12 1979

MEMORANDUM

To: State Director, Utah State Office
Bureau of Land Management, Salt Lake City, Utah

From: Acting Regional Director, Region 6
U.S. Fish and Wildlife Service, Denver, Colorado

Subject: Biological Opinion for Parker Mountain Grazing EIS, Utah

This is our biological opinion prepared in response to your July 2, 1979, memorandum requesting formal consultation regarding the impact of the Parker Mountain Grazing Plan on endangered species.

Opinion

It is our biological opinion that the proposed action is not likely to jeopardize the continued existence of the bald eagle (Haliaeetus leucocephalus). However, it also is our opinion that this action will likely jeopardize the continued existence of the Utah prairie dog (Cynomys parvidens).

Project Description

The proposed action involves managing the vegetational resource for livestock and wildlife forage on 213,057 acres of public land. The main objective of the proposal is to improve grazing management programs on the Parker Mountain Planning Unit. The proposed plan includes the chaining of 2,400 acres of sagebrush followed by seeding to increase the production of forage plant species.

Basis of Opinion

Replacing sagebrush communities with forage plants has adversely affected the sagebrush-lagomorph-eagle food cycle in many parts of Utah. Wintering bald eagles habitat is impacted by the land practice of chaining to destroy the sagebrush communities. This activity reduces eagle hunting habitat and the prey species (primarily jackrabbit) numbers. We recognize that this practice could result in some eagle loss, especially when considering cumulative effects. The overall threat would be to a small number of the entire winter population of bald eagles (estimated at 8,000 to 12,000). We, therefore, do not believe this action would jeopardize the continued existence of the bald eagle.

CONSERVE AMERICA'S ENERGY

The Utah prairie dog is a unique animal serving an important role in range ecology. It exists only in south-central Utah, the most restricted of all prairie dogs in the United States. The environmental impact statement (EIS) issued July 1979, describes a multiple use conflict between the proposed activity of the plan and the Utah prairie dog.

The proposal to continue livestock grazing through continuous seasonal grazing at the current 67 percent allocation level (with the possibility of 100 percent allocation) could contribute to the deteriorating forage trend. The endangered Utah prairie dog, which occurs on the Awapa Plateau, must compete with livestock and wildlife for grasses and forbs. Prairie dogs depend on succulent spring forage for nutrition necessary to produce normal size litters. Livestock grazing could increase under the proposal if 100 percent allocation applies, thereby increasing grazing during periods critical to forage growth and reproduction. This increased grazing of important spring grasses and forbs will reduce their availability to expanding prairie dog populations. These forage species are essential during periods when prairie dogs are lactating; thus, their loss may reduce prairie dog production and preclude population increases.

Livestock grazing in the spring would result in direct competition with prairie dogs and would affect the availability of cool season grasses at a period when young begin to become independent. Prairie dogs venturing further from burrows in search of scarce food may be more vulnerable to predation. Also, increased spring grazing could result in replacement of vital grasses by shrubs because of the competitive advantage given to the latter. Therefore, the plan as proposed will likely jeopardize the continued existence of the Utah prairie dog.

Reasonable and Prudent Alternative

It is our belief that jeopardy would be avoided if the following reasonable and prudent alternative is implemented. The use alternative (Alternative F) should be used with adjustments. This alternative would limit spring grazing use of important forage species to 25 percent of current annual growth on 60 percent of the unit. This will improve the vigor and reproductive capacity of desirable range plants. As forage species increase, the overall condition of the range improves. Reduced livestock grazing competition during spring would benefit prairie dog populations. Improvement in availability of cool season grasses would allow prairie dogs to forage near the protection of their burrows. This would improve the chances of young surviving during lactation and early stages of independence. The increased survival rate of prairie dogs would contribute to larger populations.

The action proposed in the EIS will not contribute to the conservation of the prairie dog; however, selection of Alternative F would remedy this problem. Further, we compliment you for separate actions making public land available for prairie dog transplants from private land where their activities have caused problems. On private lands, the Utah prairie dog consumes alfalfa and grain and digs nuisance burrows affecting farmers, ranchers, and developers alike. Establishing self-sustaining populations on public lands should lead to population buildups that may eventually lead to delisting the species. Alternative F would complement the efforts to shift the Utah prairie dog from private to public lands.

Recommendations on Developing Programs

As we stated in our basis of opinion, the changing of the sagebrush communities could impact the bald eagle by destroying its habitat and food source. Section 7(a) states that Federal agencies shall utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered and threatened species. To help carry out these conservation programs, there should be no chaining of large acreages of sagebrush.

If the proposed project plan changes appreciably or new species are listed, Section 7 consultation should be reinitiated. Thank you for your interest in conserving endangered species.

Marvin P. Duncan

Marvin P. Duncan

2. State Contacts

Agencies of state government having jurisdictional interests or special expertise in the project, listed below, have been contacted and have supplied statement data.

Agency	Nature of Contact	Response	Action Taken
Utah Division of Wildlife Resources	Presented proposal and requested data assistance.	Yes	Provided data assistance.
Utah Bureau of Air Quality	Requested data assistance.	Yes	Provided data assistance.
Utah Bureau of Water Quality	Requested data assistance.	Yes	Provided data assistance.
Utah Division of State History	Requested data assistance.	Yes	Provided data assistance.
Utah State Historic Preservation Officer	To comply with National Historic Preservation Act; preparation of memorandum of understanding.	Yes	A "Memorandum of Understanding" between the Bureau of Land Management and the State of Utah has been signed. See Letter B.

3. Local Government

The following public officials at the local level were advised of the project. Their views and comments were considered in preparation of the statement.

Agency	Nature of Contact	Response	Action Taken
Six County Commissioners Organization	Presented proposal	Favorable	None
Wayne County Commission	Presented proposal	Favorable	None

E. COORDINATION IN REVIEW OF THE DRAFT EIS

The following list identifies those agencies, bureaus, and groups that received a copy of the draft environmental impact statement and were requested to submit written comments. (*Denotes comments were received on the draft EIS.)

LETTER B

STATE OF UTAH
Scott M. Matheson, Governor
DEPARTMENT OF
DEVELOPMENT SERVICES
Division of State History

Melvin T. Smith, Director
Crane Building, Suite 1000
307 West 2nd South
Salt Lake City, Utah 84101
Telephone (801) 533-5755

April 4, 1979

Craig Harmon
EPS Archeologist
Bureau of Land Management
Richfield District Office
150 East 900 South
Richfield, Utah 84701

RE: Memorandum of Understanding for Parker Mountain Range Management Environmental Statement

Dear Mr. Harmon:

The staff has reviewed the enclosed memorandum of understanding and concur with its intentions. If properly implemented, it will adequately protect cultural resources, although we will reserve the right to comment on the technical aspects of surveys and research. This letter is not to be used as clearance for the E.I.S. We will comment when the draft E.I.S. is prepared.

If you have any questions or concerns, please call or write Wilson G. Martin, Preservation Development Coordinator, Utah State Historical Society, 307 West 200 South, Salt Lake City, Utah 84101, 533-6017.

Sincerely,

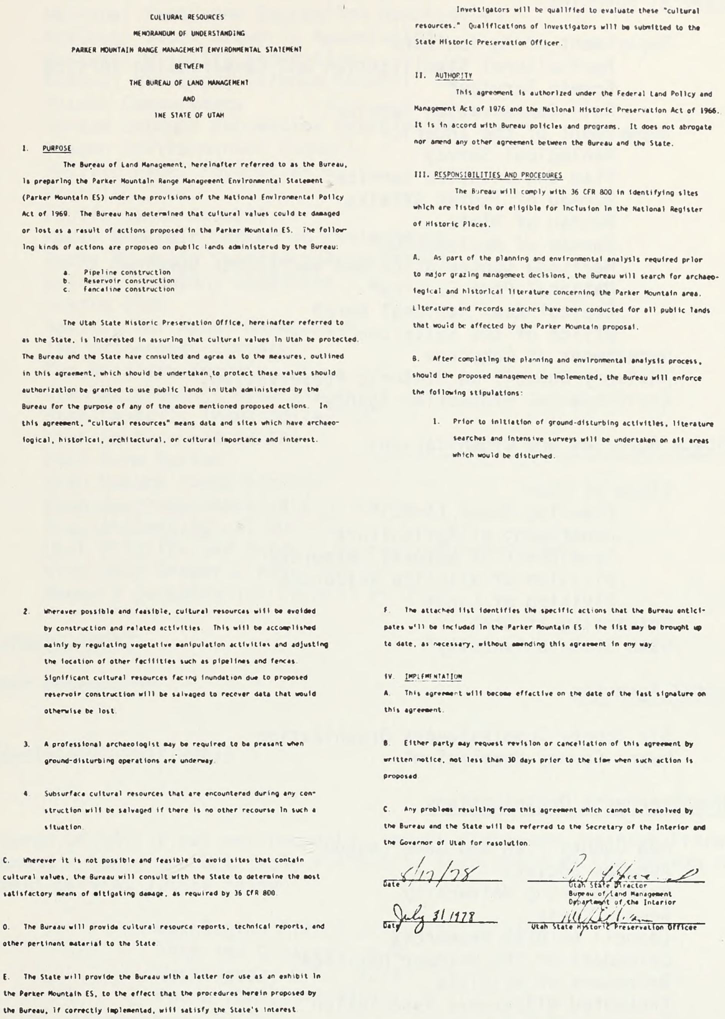
J Phillip Keene

J. Phillip Keene III
Executive Director
and
State Historic Preservation Officer

WGM:br:C267:Multi

Enclosure

STATE HISTORY BOARD: Dr. Milton C. Abrams, Chairman • Theron H. Luke • Dr. Ted J. Warner • Elizabeth Montague • Howard C. Price, Jr.
Dr. Dello G. Dayton • Dr. Wayne K. Hinton • Helen Z. Papanikolas • David S. Monson • Elizabeth Griffith • Mabel J. Oliver



CULTURAL RESOURCES
MEMORANDUM OF UNDERSTANDING
PARKER MOUNTAIN RANGE MANAGEMENT ENVIRONMENTAL STATEMENT
BETWEEN
THE BUREAU OF LAND MANAGEMENT
AND
THE STATE OF UTAH

I. PURPOSE

The Bureau of Land Management, hereinafter referred to as the Bureau, is preparing the Parker Mountain Range Manageeent Environmental Statement (Parker Mountain ES) under the provisions of the National Environmental Policy Act of 1969. The Bureau has determined that cultural values could be damaged or lost as a result of actions proposed in the Parker Mountain ES. The following kinds of actions are proposed on public lands administered by the Bureau:

a. Pipeline construction
b. Reservoir construction
c. Fenceline construction

The Utah State Historic Preservation Office, hereinafter referred to as the State, is interested in assuring that cultural values in Utah be protected. The Bureau and the State have consulted and agree as to the measures, outlined in this agreement, which should be undertaken to protect these values should authorization be granted to use public lands in Utah administered by the Bureau for the purpose of any of the above mentioned proposed actions. In this agreement, "cultural resources" means data and sites which have archaeological, historical, architectural, or cultural importance and interest.

Investigators will be qualified to evaluate these "cultural resources." Qualifications of investigators will be submitted to the State Historic Preservation Officer.

II. AUTHORITY

This agreement is authorized under the Federal Land Policy and Management Act of 1976 and the National Historic Preservation Act of 1966. It is in accord with Bureau policies and programs. It does not abrogate nor amend any other agreement between the Bureau and the State.

III. RESPONSIBILITIES AND PROCEDURES

The Bureau will comply with 36 CFR 800 in identifying sites which are listed in or eligible for inclusion in the National Register of Historic Places.

A. As part of the planning and environmental analysis required prior to major grazing managemeet decisions, the Bureau will search for archaeological and historical literature concerning the Parker Mountain area. Literature and records searches have been conducted for all public lands that would be affected by the Parker Mountain proposal.

B. After completing the planning and environmental analysis process, should the proposed management be implemented, the Bureau will enforce the following stipulations:

1. Prior to initiation of ground-disturbing activities, literature searches and intensive surveys will be undertaken on all areas which would be disturbed.

2. Wherever possible and feasible, cultural resources will be avoided by construction and related activities. This will be accomplished mainly by regulating vegetative manipulation activities and adjusting the location of other facilities such as pipelines and fences. Significant cultural resources facing inundation due to proposed reservoir construction will be salvaged to recover data that would otherwise be lost.

3. A professional archaeologist may be required to be present when ground-disturbing operations are underway.

4. Subsurface cultural resources that are encountered during any construction will be salvaged if there is no other recourse in such a situation.

C. Wherever it is not possible and feasible to avoid sites that contain cultural values, the Bureau will consult with the State to determine the most satisfactory means of mitigating damage, as required by 36 CFR 800.

D. The Bureau will provide cultural resource reports, technical reports, and other pertinent material to the State.

E. The State will provide the Bureau with a letter for use as an exhibit in the Parker Mountain ES, to the effect that the procedures herein proposed by the Bureau, if correctly implemented, will satisfy the State's interest.

F. The attached list identifies the specific actions that the Bureau anticipates will be included in the Parker Mountain ES. The list may be brought up to date, as necessary, without amending this agreement in any way.

IV. IMPLEMENTATION

A. This agreement will become effective on the date of the last signature on this agreement.

B. Either party may request revision or cancellation of this agreement by written notice, not less than 30 days prior to the time when such action is proposed.

C. Any problems resulting from this agreement which cannot be resolved by the Bureau and the State will be referred to the Secretary of the Interior and the Governor of Utah for resolution.

8/17/78
Date

Utah State Director
Bureau of Land Management
Department of the Interior

July 31 1978
Date

Utah State Historic Preservation Officer

1. Federal Agencies

- Department of Agriculture
  - Agricultural Stabilization and Conservation Service
  - Forest Service*
  - Soil Conservation Service*
- Department of the Interior
  - Geological Survey
  - Fish and Wildlife Service*
  - Bureau of Indian Affairs
  - Bureau of Mines
  - Bureau of Reclamation*
  - Heritage Conservation and Recreation Service
  - National Park Service*
  - Capitol Reef National Park*
  - Office of the Solicitor
- Department of Commerce
- Advisory Council on Historic Preservation
- Environmental Protection Agency*

2. State Agencies and Organizations

- State of Utah
  - Clearing House (A-95)*
  - Department of Agriculture
  - Department of Natural Resources
  - Division of Wildlife Resources
  - Division of Lands
- University of Utah
- Utah State University*

3. Local Agencies

- Six County Commissioners Organization
- Wayne County Commission*

4. Nongovernment Organizations

- Ada County Fish and Game League
- Audubon Society
- Brigham Young University
- Common Cause
- Council on Utah Resources
- Defenders of the Outdoor Heritage
- Defenders of Wildlife
- Enchanted Wilderness Association
- Environmental Action
- Environmental Awareness
- Environmental Defense Fund
- Friends of the Earth
- Good Earth
- Institute of Ecology
- Izaak Walton League
- League of Women Voters

National Council of Public Land Users
National Parks and Recreation Association
National Stock Grower's Association
National Wildlife Federation
Natural Resources Defense Council
Nature Conservancy
Nevada Outdoor Recreation Association
Oregon Environmental Council
Pacific Legal Foundation
Pro-Utah, Inc.
Public Lands Council
Rocky Mountain Center on Environment
Rocky Mountain Sportsmen Association
Save Our Canyons Committee
Sierra Club
Society for Range Management
The Wilderness Society
The Wildlife Society
Utah Cattlemen's Association
Utah Council, Trout Unlimited
Utah Environment Center
Utah Farm Bureau
Utah Nature Study Society
Utah Sportsmen Association
Utah Archaeological Society
Utah Wildlife and Outdoor Recreation Federation
Utah Wool Grower's Association*
Women's Conservation Council of Utah

5. Congressional

Utah Delegation

6. Interested Individuals

Copies of this final environmental impact statement, hearing transcript, and comment letters are available for public inspection at the Bureau of Land Management Offices listed below:

Washington Office of Public Affairs
18th and C Street, N.W.
Washington, D.C. 20240
Phone (202) 343-4151

Utah State Office
University Club Building
136 East South Temple
Salt Lake City, Utah 84111
Phone (801) 524-4257

Richfield District Office
150 East 900 North
Richfield, Utah 84701
Phone (801) 896-8221

F. PUBLIC COMMENTS ON THE DRAFT EIS

The Public Review Process and Procedures

The draft EIS was filed with the Environmental Protection Agency on July 6, 1979 which provided for a comment period extending to August 27, 1979. A notice of availability of the draft EIS and a public hearing announcement were published on July 11, 1979 in the Federal Register. Over 400 copies of the draft EIS were mailed to federal, state, and local governmental agencies, private groups, and organizations, and individuals for their review and comment.

All written comments and the hearing transcripts will be sent, with the final EIS, to the Secretary of the Interior and the Environmental Protection Agency. They are also available for inspection at the State Director's Office, BLM, Salt Lake City; the BLM Richfield District Office; and the BLM Office of Public Affairs, Washington, D.C.

All comments were reviewed and considered. Those which presented new data, questioned findings of analyses, or raised issues directly related to the adequacy of the draft EIS were responded to and used to revise the text. Responses were not made to comments that did not address the adequacy of the draft EIS.

1. Public Hearing

A hearing was held on August 16, 1979 in Loa, Utah. Albert E. (Ed) Smith, Chief Branch of Biological Resources, BLM Utah State Office, conducted the hearing. Of the 22 people attending, 5 testified. Most comments centered upon the relationship between the federal government and the livestock operator. The consensus opinion was that, left to their own devices and without federal intervention, the livestock operators were entirely capable of maintaining public land in good condition. Few commentors specifically addressed the proposal or the adequacy of the draft statement. Specific comments are presented below.

The following people attended the public hearing.

Panel

Carl J. Thurgood	Team Leader, Parker Mountain Grazing Management EIS
Douglas Thurman	Technical Coordinator
Bert Lowry	Wildlife Biologist
Dee Ritchie	Range Conservationists
Roger Twitchell	Botanist

The following people presented comments:

	Speaker	Representing
1.	Farrell Chappell	Wayne County Commission
2.	Ione Blackburn	Self
3.	Gilbert Hallows	Self
4.	George Morrell	Self
5.	Carl Taft	Self

Response to Hearing Comments

1. Farrell Chappell, Wayne County Commission

1.1 Comment: (Summarized) (1) I am well acquainted on the Parker Mountain area. (2) There have been good years and bad years (drought). (3) Livestockmen have removed livestock during drought to protect the range. (4) Permittees should be compensated for permits taken in range reduction programs. (5) Permittees have done much on their own to be able to continue grazing. They have hauled water, built fences, and constructed ponds. (6) Areas proposed for reductions do not support many livestock. (7) Antelope are being allowed to increase and that is wrong. They should also have to pay for grazing permits. (8) The prairie dog has taken over many areas of range land. (9) Ranges have been abused in the past, but are now coming back. (10) Livestockmen need to work together and make input to wilderness proposals, so that areas can be removed from the wilderness program.

Response: The information received is appreciated and will be considered in the formulation of allotment management plans.

2. Ione Blackburn, Loa, Utah

2.1 Comment: (Summarized) (1) The past few years have been dry and we have had to haul water to our sheep or bring them home and buy feed for them. (2) The prairie dogs are a "dangerous species" and they are ruining a lot of acres, probably thousands. If you are riding a horse chasing an animal, your life is in danger if a horse hits one of those holes. When they got too numerous before, they would be poisoned. (3) We have been here for 46 years and if we are going to be cut off we should be reimbursed for our share.

Response: Alternative F Page 8-184 recognizes the increase in prairie dog numbers. The impacts are also recognized in text changes on Page 8-208.

3. Gilbert Hallows, Torrey, Utah.

3.1 Comment: In reading through the environmental impact statement, one of the first thing I noticed was the drastic action proposed for the Torrey Town Allotment. It's proposed that it be cut from 500 AUMs to 27. This would be cut to 5 percent of its present level. There would be a 112 head of cattle involved which would be cut to between five and six head. I couldn't understand the justification for this large of a cut.

Response: Because of the concern stated above and a field investigation, a change in the proposal has been made. The Torrey Town Allotment has been added to the list of six allotments on Page 1-17 and 1-19 where implementation would be postponed for 1 year while new forage surveys are conducted to determine capacity and study the area for possible range improvement such as water developments and seeding. Changes are shown on pages 1-17, 1-19, and on Table 1-9.

3.2 Comment: Table 2-12 classifies the entire Torrey Town Allotment as pinyon-juniper, This is false. There are large areas in the allotment, especially on the north end, several square miles, where there aren't any pinyon-juniper trees.

Response: The Torrey Town Allotment is in fact entirely within the pinyon-juniper ecosystem type. The fact that there are openings (dry meadow-parks) within the type does not change the overall vegetation type.

3.3 Comment: Table 2-13, in vegetation compensation (composition), shows that there is no blue gramma grass, no shadscale, and no four-wing falsebush (saltbush), which is false. All three of these species are found on the allotment.

Response: Changes have been made on Table 2-13 on Page 2-37 and Table 2-14 on Page 2-40 to reflect the presence of these plants.

3.4 Comment: Table 2-24 shows that only 59 AUMs have been used in the last 3 years. This also doesn't give the true picture. These 3 years happen to have been when the man who sold the allotment and myself, it was between the time of our operations. Last year I know of at least 320 AUMs which were utilized on the allotment as opposed to 259 (59) that it shows in the book.

Response: As footnote b on Table 2-24 indicates, the actual use figures are based on the average licensed use for the years 1975-1977. Actual use figures for 1978 are not represented on the table.

3.5 Comment: Appendix I-1 shows that there will be, after the proposed cut, 25 percent, there will be no increase in grazing in 11 to 20 years after implementing. To me this shows that nothing will be accomplished by cutting the allotment in the first place. If there is a purpose for cutting the allotment, it should be to improve the range condition which would justify an ultimate increase in the amount of grazing. And not to remain at 5 percent of what it is now.

Response: Page 2-49 shows the Torrey Town Allotment in poor condition. It therefore would not improve on its own significantly in 11-20 years to allow for increases in grazing use. This allotment will be added to the study component indicated in response to comment 3.1 above.

3.6 Comment: Table 2-16 indicates that there are only 37 AUMs produced on the entire allotment, which covers 9,477 acres. To me this is completely unreasonable. It would be 256 acres per AUM. I would like to compare this with two allotments that border this allotment that are separated only by the river. They are very similar. The River Allotment has 27 acres per AUM as compared to 256 across the river.

The Grover Allotment has only 9 acres per AUM compared to 256. The six cows which would be allowed on the Torrey Town Allotment, this would be 1,579 acres per cow under the proposed action.

Response: See response to Comment 3.1 above.

3.7 Comment: Also, the environmental impact statement shows no improvements. If the pond at the lower Bea Lewis Flats were lined so that it would hold water, it would allow hundreds of acres to be utilized which now can't be utilized until after the snow falls. And so this would allow for more grazing use.

Response: See response to Comment 3.1 above.

4. George Morrell, Loa, Utah

4.1 Comment: The concerns that I have tonight are these: if I have read the proposal correctly, the Rees, Tanner, Brian, and Taylor Farm Allotments are being proposed to be cancelled out completely. Which I feel is unnecessary. It also states that these four allotments are to be combined with the Seven Mile Allotment which apparently under this proposal we already have a problem up there without adding more AUMs to us.

Also it creates a management problem. I'm sure that these gentlemen on the committee are aware of them, and it's because of the area. It is not useable under the Seven Mile Grazing Allotment because of the water situation. It is steep terrain. It has been set up--the Taylor Allotment is sheep allotment and they do utilize it and get some good out of it.

Under this proposal I fail to see where the Seven Mile grazers would receive anything but more problems in adding more AUMs to the Seven Mile Grazing Allotment and then moving the cattle up onto the Row-of-Pines Bench and Dog Flat Allotments.

Response: There are presently administrative management problems in this area resulting from trespass, poor grazing practices, and not meeting the physiological needs of forage plants. The overall area shows downward trend. The Rees, Tanner, Brian, and Taylor Farm allotments are also recognized as important winter habitat areas for wildlife. These small allotments would be combined so overall pressure on Seven Mile Allotment would not increase. AUMs would be used by wildlife, making more forage available on the area covered by the original Seven Mile Allotment.

It was recognized that water is a problem in the area and the proposal addresses this. Eight miles of pipe line would be constructed, four new water troughs would be established, one new reservoir would be constructed, three existing reservoirs would be improved and modified, along with other important range developments such as management fencing and chaining and seeding to increase the range forage. Grazing management systems would be implemented and the overall improvement should be evident.

Elimination of unauthorized use could be a major benefit to the Seven Mile users.

5. Carl Taft, Bicknell, Utah

5.1 Comment: And like the man over here said, he questioned the authenticity of the report, as I read it. And they were going to put a fence out here between my grazing area and another one. And they are going to raise it this high off the ground because cows can't get through it but the antelope can. And I have never seen a cow out there in the vicinity of that fence, never. And I have been in that area a long time, gentlemen.

Response: This comment concerns the proposed fence between Post Hollow and Long Hollow Allotments. Current livestock (cattle) use is 293 AUMs for Post Hollow and 245 AUMs for Long Hollow. This means that as many as 538 cattle graze these adjoining areas which are currently separated only by lines drawn on allotment boundary maps. Also, there is a water hole at South Spring on Long Hollow Allotment, right on the boundary of Post Hollow Allotment. At this time, cattle from both allotments use this water and cross from allotment to allotment unchecked. The proposed fence would eliminate this problem and reduce over-utilization of forage on portions of both allotments.

2. Comment Letters and Responses

Letters are presented in the order in which they were received.

Letter No.	Commentor	Representing
1.	Derek A Hambly	National Park Service--Capitol Reef National Park
2.	Sam Chournos	Utah Wool Growers
3.	George D. McMillan	Soil Conservation Service
4.	Richard A. Strait	National Park Service--Rocky Mountain Region
5.	D. W. Webber	Bureau of Reclamation
6.	Dyle Williams	Self
7.	Richard K. Griswold	United States Forest Service, Region 4
8.	Lee M. Allen	A-95 Coordinator--State of Utah (Utah State Historic Preservation Officer)
9.	Robert H. Shields	U.S. Fish and Wildlife Services--Area Office Colorado-Utah
10.	Norinda Burbidge	Predatory Animal Protection Organization
11.	Roger E. Banner	Utah State University--Cooperative Extension Service
12.	Guy G. Pace, et al.	Miner's Mountain Grazers
13.	Roger L. Williams	Environmental Protection Agency--Region VIII

The following section contains copies of the 13 letters received. The line and number at the left side of each letter provides a key to the comment. The response to the comment is shown to the right of the comment with a corresponding number. Comments are numbered by letter and comment within the letter. Thus Comment 3.1 refers to Letter Number 3, Comment Number 1.

1

United States Department of the Interior
NATIONAL PARK SERVICE
CAPITOL REEF NATIONAL PARK
TORREY, UTAH 84775

IN REPLY REFER TO:
L76

July 19, 1979

Mr. Donald L. Pendleton, District Mgr.
Bureau of Land Management
Richfield District Office
150 East 900 North Street
Richfield, Utah 84701

Dear Mr. Pendleton:

Thank you for the opportunity to comment on the draft Environmental Impact Statement for the Parker Mountain Planning Unit.

It took an inordinate amount of time to digest the contents of the draft since we found that, perhaps by design, the format of the report is extremely confusing. Tables and illustrations are located in such a way that the reader is continually having to backtrack and cross reference to locate materials of interest; unit designations are wordy and so closely resemble each other that it is sometimes hard to distinguish one from another without continual reference to the maps or scattered descriptions; maps are out of date and so poorly reproduced that it is very difficult to locate reference points in some cases; and units are not treated individually even though they differ greatly in features of terrain, climate, and biology.

Other than the above mentioned difficulties, we would like to offer the following comments:

1.1 Figure 1-4. Fencing should be indicated on the common boundary between Capitol Reef National Park and the Torrey Town Unit north and south of State Highway U-24.

1.2 Page 1-22. This section addresses grazing trespass on BLM lands but does not address the issue of what BLM will do to prevent or bear responsibility for trespass on other Federal, state, or private lands. It is assumed that BLM would be prepared to bear full responsibility for preventing such trespass through adequate fencing, monitoring, or other actions.

1.3 Figure 2-28. Class IV VRM is indicated for Miners Mountain. This should be Class II according to your photographs (Fig. 2-25 thru Fig. 2-27).

1.1 Response: Only those existing fences which are directly associated with the proposed range developments are shown in Figure 1-4. For example, existing water lines and fences that would connect with a proposed water line or fence are shown on this figure.

1.2 Response: Livestock owners are responsible for the control of their livestock. Where adjoining private or state lands are grazed at times other than the season or numbers authorized by BLM, it generally has been the practical approach that the person who controls these private or state lands fence them.

Where the unrestricted movement of livestock presents a management problem between lands managed by federal agencies these problems are generally resolved through a cooperative program.

1.3 Response: Figure 2-25, shown as Class II, is near Miner's Mountain--not on Miner's Mountain. See Appendix II-10 for the methodology for determining VRM classes.

1.4 Page 2-74. We disagree that UT-050-221 lacks any wilderness characteristics. This unit, as well as UT-050-221, shares a common boundary with recommended wilderness areas for Capitol Reef National Park. We don't think that wilderness characteristics are dictated by congressional boundary lines. Much of this area should be considered to have wilderness potential.

1.4 Response: It is assumed the comment refers to UT-050-222 rather than UT-050-221 since unit UT-050-221 is identified on Table 2-25 (Page 2-74) and Figure 2-29 (Page 2-75) as "possibly having wilderness character," and has been recommended for more intensive inventory. Unit UT-050-222 was determined to lack wilderness character in the Initial Phase of the BLM Wilderness Inventory as shown on Page 2-74. The recommendation to drop this unit from further wilderness review was made in March 1979, and the final decision to that effect was made on August 13, 1979, after a 90-day public review and comment period. No comments were received specifically concerning Unit UT-050-222 during the public comment period when the decision concerning the unit was being made.

1.5 Chapter 3. Impacts on individual units should have been discussed rather than lumping "Proposal Components" (Fig. 1-3) together. For instance, there is really no way of comparing impacts on widely diverse areas such as Miners Mountain, North Fremont, and Terza Plats which are among the "Continuous-Seasonal Grazing With Adjustment of Grazing Allocation" units. They are diversified in terrain, vegetation, altitude, biology and a host of other factors. Yet, impacts for them are lumped together.

1.5 Response: The "lumping" of units was based on allotments which have similar problems and could be treated similarly. Particular impacts are identified where they are different from one unit to another within a "component."

1.6 Page 8-157. Does the reference to fencing refer to boundary fence between landlords or to internal fencing across BLM property? If it is boundary fencing, the impact on recommended wilderness areas in Capitol Reef National Park should be discussed.

1.6 Response: The additional fencing referred to on Page 8-157 would be on the boundaries between BLM and private and state lands, rather than to the boundaries between state, private, and Park Service lands.

1.7 Page 9-1. We wonder why no formal contact was made with the administration at Capitol Reef National Park which shares a common boundary of approximately twenty miles with the Parker Mountain Planning Unit. Some actions contemplated for that Unit could impact recommended wilderness units, visual resources as reviewed on Miners Mountain from the Scenic Drive, and water quality in the Fremont River, Sulphur Creek, and Pleasant Creek.

1.7 Response: Standard formal contact and consultation was conducted by BLM in the preparation of the proposal and this EIS. This process is discussed in Chapter 9. On two separate occasions, the personel from Capitol Reef National Park were specifically invited to meetings. The circulation of the draft impact statement and the public hearing held at Loa, Utah on August 16, 1979 are considered part of the formal consultation process. Subsequent to the draft, contact was made with park personel.

The only identifiable impacts to wilderness, visual resources, and water quality are discussed in Chapter 3 under appropriate headings.

We hope that there will be an opportunity to get together and discuss these discrepancies. Or, at least, that our comments will be given full consideration before a final Environmental Impact Statement is formulated.

Sincerely yours,

Derek O. Hambly
Superintendent

Utah
Wool Growers

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SALT LAKE CITY, UTAH 84101
TELEPHONE 359-3972

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MALCOLM YOUNG

2

July 17, 1979

Mr. Donald L. Pendleton
District Manager
Bureau of Land Management
Richfield District Office
150 East 900 North St.
Richfield, Ut. 84701

Dear Mr. Pendleton:

Thank you for submitting your Parker Mountain Grazing Management, Draft EIS.
The document has been reviewed and there are numerous concerns in this statement.

1- A reduction of 53% of domestic livestock.

2- 43 livestock operators reduced an average of 44%.

3- 23 livestock operators reduced 100% initially but gradually increase allocation after year 11.

4- 5 operators would be required to change season usage. Two change livestock from sheep to cattle.

5- The proposal would reduce livestock grazing for 56 of the 99 operators of the planning unit.

6- The 56 livestock operators that would be affected by the proposal would likely obtain the needed feed and make the required changes in order to continue their annual livestock operation.

7- Any increase in forage would be allocated to wildlife.

8- Economic income to state increased by increasing wildlife numbers.

It appears from the proposals it's only a matter of time for the domestic livestock to be removed from federal lands in your district.

A twenty year period of continued downward numbers of livestock is not encouraging to the domestic livestock operator.

Too you show priority to the wildlife species over domestic livestock. The result with downward adjustments in domestic livestock and priority of AUM's to wildlife. The local rancher hasn't much of a chance to support a family and live in the area now occupied. What value is the increased revenue for wildlife to the local ranch operator when the money goes to the state. Already there is winter range problems for wildlife yet compensation to private land owners is nil.

2.1 It appears there is no consideration being given to local communities as individuals. What happens to the 23 operators that are completely eliminated from BLM land? How do you justify their economic status?
In your analogy of the above statement you state "Experience has shown that livestock operators in this area are more likely to obtain additional feed from other sources to continue their yearly operations rather than sell. This probably results from the users strong historical ties to the livestock industry and the geographic area."

2.2 When individuals know they are reduced in AUM's for 11 to 20 years then it's doubtful your statement is valid. You are talking to another generation not the current generation.

2.3 Buying of feed in the Wayne County area where adjustments downward are made will increase demand for hay this would then need to be supplied from outside the county, again pushing up costs.

It is our opinion you are drawing too many conclusions on basis of assumption not fact.

It is our position that every consideration should be first given to the people and communities in the area that if there are any adjustments to be made they must be made on the basis of the impact on the individual and his family. Any increased AUM's should be given to local ranch operators.

Thank you for allowing us to comment.

Sincerely,
Utah Wool Growers Assn.

Sam Chournos
Sam Chournos, President

2.1 Response: Data sufficient to analyze economic impacts to individual local communities is not available. Therefore these impacts are analyzed on a county level.

Analysis of impacts to individual ranchers is not possible because of restrictions of the "Privacy Act" prohibit the gathering and publishing of personal data even if the individuals were willing to provide it.

While recognizing the short-comings, it is felt the best approach left to use was to analyze the impacts to the "average" rancher in each size category.

Regarding the 23 ranchers that might temporarily be reduced by 100 percent, the economic impacts to these individuals could be significant, and some would possibly leave the livestock business.

2.2 Response: In some cases, a time-frame for impacts of 11 to 20 years would affect the next generation of livestock operators. Language acknowledging this point has been added under the sociological impact section on Page 3-64.

2.3 Response: One of the assumptions used in our economic analysis was that the additional feed would be purchased from outside the Wayne County area. This is inplicit in the $65/ton (delivered) price that was used in the analysis. This information was obtained from Wayne County ranchers who actually bought feed from outside the area during 1978.

This assumption has been made more explicit in Appendix III-3, page 62.

United States Department of Agriculture
Soil Conservation Service
4012 Federal Bulding
125 South State Street
Salt Lake City, UT 84138

3

August 15, 1979

Donald L. Pendleton
District Manager
Richfield District Office
Bureau of Land Management
150 East 900 North Street
Richfield, UT 84701

Dear Mr. Pendleton:

We have reviewed the draft environmental impact statement on proposed grazing management on the Parker Mountain Planning Unit in Wayne County, Utah. Most of the areas where S[illegible] has interest or expertise have been adequately addressed.

We offer the following comments which may assist you in preparing the final environmental impact statement.

3.1 1. The document is much longer than the normal 150 to 300 pages recommended in the final regulations of the Council on Environmental Quality. See paragraph 1502.7 on page 55995 of the Wednesday, November 29, 1978, Federal Register.

3.2 2. Numbers used throughout the document could be rounded to the nearest 10 or 100. For example, the 1103 listed in the summary could read 1100.

3.3 3. Some of the assumptions (see pages 3-20, 3-21, 3-22 and 3-24 for example) are unfounded because they are based on present vegation types and forage conditions. Changes in composition, ground cover, and yield can be predicted only if the ecological potential of the site is known.

3.4 4. The table and statement on page 3-21 is not a fair comparison. In the Forest Service studies, sagebrush was reduced to 0% of the community by spraying. The proposed chaining would leave 20 to 70% of the sagebrush. Therefore, results similar to the Forest Service studies could not be expected.

3.5 5. There are no provisions for operation and maintenance in the statement. Research indicates that re-treatment is needed in about 15 years to maintain a brush management project. Because chaining big sagebrush has a lower kill success than spraying, the life of the proposed project would be much shorter.

3.1 Response: Preparation of the draft statement was begun prior to publication of the CEQ final regulations, November 29, 1978, and the draft statement was published prior to July 30, 1979 when the final regulations became effective. The former CEQ guidelines did not impose a limitation on the number of pages.

3.2 Response: While numbers could have been rounded, they now represent the best available information. Furthermore, most numbers represent the product of mathematical calculation and, even though inventories may lack precision to the nearest unit, it was felt that rounding would not permit the reader to judge whether the calculations were done correctly.

3.3 Response: The predictions for vegetation responses are based on the best information available. Data from existing exclosures and natural areas within the planning unit were used to indicate what could be expected under certain conditions. Pertinent literature was also reviewed by professional range conservationists, botanists, and wildlife biologists and applied to make the assumptions outlined in the Chapter 3 rationale.

3.4 Response: The comparison of the results of the Forest Service spraying with the expected results of the BLM chaining is given to illustrate the areas suitability for such treatment (the USFS and BLM treatment areas are adjoining). Though the chaining would not remove as high a percent sagebrush as spraying, neither would it remove as many desirable browse plants and the remaining sagebrush and other browse plants would produce forage. Based on amount of surviving browse, the actual plant composition would differ from that achieved on the Forest Service spraying project.

3.5 Response: Chainings and seedings in the planning unit, that are 15 to 20 years old, have not required retreatment, and similar results would be expected for proposed treatments. Proposed monitoring would indicate if earlier retreatment is necessary but it is not expected that it would be needed.

3.6 6. Critical deer winter range on BLM is adjacent to private land. An increase in the deer winter population of 900 would cause increase use and damage of private land and property by deer. This impact has not been addressed in the statement.

We appreciate the opportunity to review and comment on this document.

John H Schmidt acting
GEORGE D. MCMILLAN
State Conservationist

cc:
Administrator, USDA, SCS, Washington, D.C. 20013
(5) Director, Office of Federal Activities, (Mail Code A-104) Environmental
  Protection Agency, Room 537, West Tower, 401 M Street, S.W. Washington,
  D.C. 20460

3.6 Response: The proposed action allocates forage for an additional 900 deer on critical deer winter range, and also provides for improved forage condition for deer on some winter range areas. There could be some increase of deer use on private lands over the present situation. The actual extent of this use is unquantifible and the amount of depredation (damage) to private crops from deer eating field crops and stored hay is unknown.

The text has been changed to indicate this impact (see Page 3-42).

United States Department of the Interior
NATIONAL PARK SERVICE
ROCKY MOUNTAIN REGIONAL OFFICE
655 Parfet Street
P.O. Box 25287
Denver, Colorado 80225

4

IN REPLY REFER TO:
L7619 (RMR)PC

AUG 15 1979

Memorandum

To: District Manager, Richfield District, Bureau of Land Management, Richfield, Utah

From: Associate Regional Director, Planning and Resource Preservation, Rocky Mountain Region

Subject: Draft Environmental Statement, Parker Mountain Planning Unit

This will confirm that the letter to you of July 19, 1979, from the Superintendent, Capitol Reef National Park, together with the following comments constitute the response of the National Park Service to the subject draft environmental statement.

4.1 It would be most useful if the chapter titles were included in the Table of Contents. Otherwise, one has no idea what the chapters are about or where to refer in the document for specific information.

4.2 Page 3-21 compares controls of pinyon-juniper and sagebrush by both chaining and chemical spraying methods. We believe it would also be in order to discuss the effects of controlled burning. Such burning could possibly allow reproduction of native grasses and perhaps improve range forage conditions. Aesthetic appearances and erosional factors would also differ from landa disturbed by chaining.

Richard A. Strait

Save Energy and You Serve America!

4.1 Response: Chapter titles have been added to the Table of Contents.

4.2 Response: Fire is a tool for vegetation control and could be used as a vegetation conversion method. Fire must be carefully prescribed and used at proper times and conditions. There have been several "successful" burns where natural reproduction and native grasses have responded well. There also have been destructive "hot" burns where native vegetation has been completely destroyed. Recovery in these cases is completely dependent upon seeding and non-use for 3 to 5 years.

United States Department of the Interior
BUREAU OF RECLAMATION
UPPER COLORADO REGIONAL OFFICE
P.O. BOX 11568
SALT LAKE CITY, UTAH 84147

5

IN REPLY REFER TO: UC-743
120.1

AUG 17 1979

Memorandum

To: District Manager, Bureau of Land Management, Richfield District, Richfield, Utah

From: Acting Regional Director

Subject: Review of Draft Environmental Impact Statement, Grazing Management, Parker Mountain Planning Unit

The Bureau of Reclamation appreciates the opportunity to review and comment on the Draft Environmental Impact Statement for the Parker Mountain Grazing Management Plan. The statement is well written and presented. It describes the area and discusses the management plan and alternatives through a well organized outline. The statement contains adequate data of a general nature with enough specific analyses to serve its particular purpose. We have no comments on specifics, we note a few editorial errors that will, we are sure, be corrected during your own in-house review.

The Bureau reaffirms its support of the multiple use concept of management on public lands. Recognizing the need to conserve our natural resources through proper management.

The Fremont River drainage including the Parker Mountain area was part of a broad inventory (Paria - San Rafael Area, Appraisal Report, February 1975) of the land and water resources of southeastern Utah. However, at the present time, the Bureau has no proposals for development in the Parker Mountain area.

cc: Director, Office of Environmental Project Review, Office of Secretary, Department of Interior, Washington DC

Teasdale utah.
aug 21-1979

6

Bureau of land management
Richfield District office
Richfield utah 84701

Dear Sirs my Comments of the draft Environmental Impact statement for the parker mt planning unit

As A Permitte on parker mt planning unit, I am very much concerned about the proposal to reduce Grazing on Teasdale Ranch allotment, and Increase Big Game numbers.

These allotments were given to protect the rancher by giving him priority on feed around his Commensurate property.

6.1 To Increase feed for wild life and reduce feed for livestock would tend to make a serious problem. we are at Present feeding large numbers of wild life, This action would only Increase numbers of deer around private property, and make a serious situation. To my understanding this is a Complete reversal from the Original plan

6.1 Response: See response to Comment 3.6.

Also we have already taken sizable Cuts In A U M for livestock use

6.2 As I read this statement it becomes Clear to me that the small Allotments where few people are Involved Is where the largest Cuts are being made regardless of the needs of the Private land owner

yours Truly

Dyle Williams
Teasdale utah

6.2 Response: The needs of the private land owner have been taken into account. However, these needs do not override the BLM mandate to manage the range resources for multiple use and sustained yield. In all cases, livestock and big game forage allocation would be adjusted to meet and not exceed range capacity for that kind of animal. The size of the allotment is not a consideration.

7

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
324 25th Street
Ogden, UT 84401

1950

August 30, 1979

Mr. Donald L. Pendleton
District Manager
Richfield District Office
Bureau of Land Management
150 East 900 North Street
Richfield, UT 84701

Dear Mr. Pendleton:

Reference is made to your letter requesting our review and comments on the draft environmental impact statement for the Parker Mountain Grazing Management program.

We have received comments from the Range Management and Wildlife Management Staffs in the Regional Office. All comments received have been consolidated in this reply. We have also contacted the Dixie and Fishlake National Forests, but they had no specific comments to make.

Page 3-31

We contend that the proposed action is not the best choice for wildlife or livestock. It is stated on page 3-31 that the action will be detrimental to vegetation on 52% of the planning unit, will have little improvement on 38% of the area, and noticeable improvement on only 10% of the area. In an area where 86% of the planning unit was studied, all 182,881 acres were found to be in a downward forage condition trend, a better management strategy could be chosen.

Utilization of forage species by livestock during the critical growth period will cause declines in forage production and the eventual decline in number of deer, antelope, sage grouse, and Utah prairie dog. By incorporating Alternative F, "adjustments of use," spring utilization would be reduced to 25%, allowing for maintenance of vigor of the plants and forage being available to wildlife species. Sage grouse and Utah prairie dog would especially benefit from this cut in livestock utilization.

Page 3-40

Riparian habitats receive no special management considerations in the proposed action. Without special management considerations, riparian habitats and associated fisheries will continue to decline as shown on page 3-40. We suggest that riparian habitats are in need of special management considerations as they are one of the most productive in terms of diversity numbers of wildlife species. In addition, healthy riparian habitats along streams are essential for the maintenance of healthy fish populations. Alternative C, "maximum constraints of livestock grazing," allows for protection of 7.78 miles of riparian habitat by fencing. We believe that some type of riparian protection should be incorporated into the plan. Fencing might not be necessary if strategies of livestock distribution can be devised.

Page 1-40

7.1 We have a few suggestions regarding the endangered and threatened species. The peregrine falcon might be added to the list on page 1-40 to be consistent with that on page 2-61. 7.2 We would also suggest that studies concerning proposed endangered and threatened plants be initiated to avoid future difficulties should the plants be federally classified. Data on population locations and the effect of grazing on them would allow for more definitive assessment as to the effect of grazing on those plants.

We believe that with the changes in overall utilization, spring utilization and riparian habitat protection, the impacts of the grazing plan on wildlife species can be lessened.

General Comments

Impacts to key wildlife species resulting from implementation of the proposed and alternative actions have been given complete coverage. Needs of wildlife species were given consideration in several aspects of the proposed action. Fences are to be constructed to allow movement, escape ramps are to be constructed on water troughs, native plants will be used in seedings, and escape routes will be planned for in vegetation manipulations. We are also pleased to note the past and planned future cooperation with the Utah Division of Wildlife Resources in determining objectives and allocation in conjunction with estimated future demands for wildlife.

7.3 Many of the terms used vary from those commonly used within the Range Management profession. Definitions differ from those published and accepted by the Society for Range Management (see A Glossary of Terms Used in Range Management, 2nd Edition, SRM). Use of standardized terms and definitions would aid in clarification and understanding of the document. Examples are:

7.1 Response: The peregrine falcon has been added to the list on Page 1-40.

7.2 Response: It is BLM policy in Utah to protect candidate and proposed threatened or endangered plant species. Also see Part "E" on Page 1-28 under standard procedures of design, operation, and maintenance considerations for developments. Ongoing studies to determine threatened and endangered plant species location, population size, and distribution are routinely conducted to help mitigate adverse affects of any ground disturbing BLM action or BLM authorized action.

7.3 Response: The animal unit used in the DEIS and calculated for other animals was taken directly from the SRM definition, i.e., it is based on a 1,000 lbs equivalent and 26 lbs dry matter per day. The definition used is more descriptive in the DEIS. The AUM description used is also more descriptive but essentially the same as the SRM definition. These were used to help the understanding and in tracking the allocation in the EIS.

Livestock forage condition and range condition are not the same (although they are closely related). Livestock forage condition is the relative value of an area for livestock grazing and does not relate to site potential. A definition of livestock forage condition as used in the EIS has been added to the glossary.

7.3

	Definition in DES	SRM Definition
1. Animal Unit	One cow with calf less than 6 months old or an equivalent identified as 5 sheep, 9.6 antelope, 5.8 mule deer, 1.88 elk.	Considered to be one mature (1000 lbs.) cow or the equivalent based upon average daily forage consumption of 26 lbs. dry matter per day.
2. Animal Unit Month	Amount of forage required to sustain the equivalent animal-unit for one month.	The amount of forage required by an animal-unit for one month.

Forage requirements vary according to size and kind of animals being grazed. From the definitions in the DES, there is no way of determining the amount of forage required. Furthermore, referring to AUM's for wildlife, even though conversion factors are given, confuse the understanding of the allocation procedure.

	Definition in DES	SRM Definition
3. Livestock Forage Condition	No definition given. Methodology is given but no definition.	The current productivity of a range relative to what that range is naturally capable of producing.

As used, livestock forage condition is essentially the same term as accepted for range condition. We recommend that the more widely used term "range condition" be used.

If you continue to use "livestock forage condition," then that should be something different than "big game forage condition" or "sage grouse forage condition."

7.4 Increased recognition of wildlife habitat needs is appropriate. However, we question whether the forage allocation for game species, as proposed, is realistic. For example, winter range is identified as the limiting factor for deer. However, winter ranges - or other limiting factors or critical areas - are not identified. Unless the carrying capacity of the crucial winter range is significantly increased, large increases in forage allocation for wildlife throughout the management area may be questionable.

As stated in a recent Utah Division of Wildlife Resources publication[1], "It is a well known fact that the health and vigor of big game populations are closely tied to the condition and the amount of the most critical portion of their habitat. In Utah, this is most often winter range, but it can, on occasion, be summer range that is limiting. The problem is to correctly identify, quantify, and describe these areas for each of the deer herd units in the State."

7.4 Response: Critical winter ranges as mentioned on Page 2-56 are depicted on Figure 2-22. The rating for these ranges is shown in Table 2-21. The proposed increases in big game forage allocations are on the crucial winter ranges. It is expected that the proposed management would improve winter ranges concurrently with expected increases in big game numbers.

---

[1] Utah Big Game Range Inventory - 1977, Publication Number 79-3, Annual Performance Report for Federal Aid Project U-65-R-D-26, Utah Division of Wildlife Resources.

7.5 Forage acre factors and mathematical calculations of grazing capacity do not hold up for most rangelands. Any mathematical calculation of carrying capacity is, at best, only a rough estimate. Only by monitoring the on-the-ground management and determination of trend over a period of several years can one satisfactorily arrive at grazing capacity. However, the past history of use and current range conditions can also furnish important information.

7.6 The proposal is for continuous season-long grazing on some allotments with 50 to 60 percent allowable use on key forage species. Other than few special instances such as grazing on wet meadows, crested wheatgrass seedings, or grazing during plant dormancy periods, we are unaware of data supporting this degree of utilization. Fifty percent use of key species during the growth period on ranges in fair condition allows little, if any, margin for improvement of range condition. Where sites are dominated by sagebrush, little improvement can be expected through grazing management practices alone. Extensive experience plus many literature sources give much reason to question statements that range trends will remain stable or become upward when ranges are grazed at utilization rates indicated. The more palatable herbaceous species under grazing, at the indicated rates, are unable to successfully compete with deep-rooted, less palatable woody plants. Vegetation manipulation is most often required to create conditions where more desirable forage species can become established.

Thank you for the opportunity to review and comment on this DEIS. We look forward to continuing our cooperative grazing program with additional emphasis on coordinating wildlife habitat and range management programs.

Sincerely,

RICHARD K. GRISWOLD
Director, Planning and Budget

7.5 Response: The proposal and alternatives provide for intensive monitoring and study periods to fine tune grazing capacities over time and determine trend.

7.6 Response: Analysis in Chapter 3, vegetation section, indicates 60 percent utilization may be too heavy. Alternative F discusses utilization at a lower level of use.

STATE OF UTAH
Scott M. Matheson
Governor
Kent Briggs
State Planning Coordinator

Division of Policy and Planning Coordination
Intergovernmental Relations Section
Loravne Tempest, Assistant State Planning Coordinator
124 State Capitol
Salt Lake City, Utah 84111
533-4981

A/95
State Clearinghouse
533-4976
533-4971

Environmental
Coordinating
Committee
533-5794

Human Resources
Coordinating
Committee
533-6081

A/85
Federal/State
Coordination
533-6083

Federal Resource
Information
Center
533-4983

8

August 22, 1979

Donald L. Pendleton
U.S. Department of the Interior/BLM
Richfield District Office
150 East 900 North Street
Richfield, Utah 84701

Re: Parker Mountain Planning Unit

Gentlemen:

The Utah State Environmental Coordinating Committee has reviewed the Draft Environmental Impact Statement for Parker Mountain Planning Unit.

The only agency choosing to comment is the Division of State History; these comments are enclosed for your information.

Thank you for the opportunity to comment.

Sincerely,

Lee M Allen

Lee M. Allen
A-95 Coordinator

LMA:ba

790717068
Enclosures

STATE OF UTAH
Scott M. Matheson, Governor
DEPARTMENT OF
DEVELOPMENT SERVICES
Division of State History

Melvin T. Smith, Director
Crane Building, Suite 1000
307 West 2nd South
Salt Lake City, Utah 84101
Telephone (801) 533-5755

July 25, 1979

Chairperson
Environmental Coordinating Committee
State Planning Office
118 State Capitol
Salt Lake City, Utah 84114

RE: Parker Mountain Grazing Management, Wayne County

Dear Chairperson:

8.1 The staff has reviewed the proposed project and concurs with recommendations/findings. If these procedures are followed, this project will have no known effect upon any potential or listed National Register historical, archeological or cultural sites. Please be advised, however, that should artifacts or cultural objects be discovered during the construction stage, it is the responsibility of the federal agency or community receiving block grant funds to notify this office immediately as provided for in the Utah State Antiquities Act of 1973 and Public Law 93-291.

Should you need assistance or clarification, please call or write James L. Dykman, Preservation Archeologist, or Wilson G. Martin, Preservation Development Coordinator, Utah State Historical Society, 307 West 200 South, Salt Lake City, Utah 84101, 533-6017.

Sincerely,

Melvin T. Smith
State Historic Preservation Officer

WGM:br:C469:WN

8.2 NOTE: Page 2-63. Some consideration should be given to the possibility of the Kayenta Anasazi utilizing the area north of Boulder Mountain

(5) concur with findings/recommendations

cc: Craig Harmon, Environmental Project Staff, Bureau of Land Management, P.O. Box 768, Richfield, Utah 84701

STATE HISTORY BOARD: Dr. Milton C. Abrams, Chairman • Theron H. Luke • Dr. Ted J. Warner • Elizabeth Montague • Howard C. Price, Dr. Dello G. Dayton • Dr. Wayne K. Hinton • Helen Z. Papanikolas • David S. Monson • Elizabeth Griffith • Mabel I. Oliver

8.1 Response: Public law 93-291 does not require the type of notification mentioned. However, compliance with the various measures outlined by the Advisory Council on Historic Preservation in 36 CFR 800, "Procedures for the Protection of Historic and Cultural Properties," is outlined in a binding Memorandum of Understanding shown in Chapter 9.

8.2 Response: The text has been revised to reflect the possible occurrence of the Kayenta Anasazi.

9

United States Department of the Interior
FISH AND WILDLIFE SERVICE
AREA OFFICE COLORADO—UTAH
1311 FEDERAL BUILDING
125 SOUTH STATE STREET
SALT LAKE CITY, UTAH 84138

IN REPLY REFER TO: (ES)

August 27, 1979

MEMORANDUM

TO: Donald L. Pendleton, District Manager
Bureau of Land Management, Richfield District Office
150 East 900 North Street
Richfield, Utah 84701

FROM: Area Manager
U.S. Fish and Wildlife Service
125 S. State Street
Salt Lake City, Utah

SUBJECT: Review comments on the draft environmental impact statement for the Parker Mountain Grazing Management

We have reviewed your draft environmental statement on the proposed grazing management for the Parker Mountain Planning Unit and offer these comments and recommendations for your consideration.

The statement presents good documentation of the natural resources found in the Parker Mountain Planning Unit and a sound interpretation of the probable impacts that would be caused by implementing the proposed action or alternatives. The statement recognizes the habitat needs of the various fish and wildlife resources and it documents sound habitat management programs to adequately meet these needs. Unfortunately, we did not find these data were used for formulating alternative plans or in support of the proposed plan.

Based on our review we do not believe the proposed action or the alternatives are the best plans that could be formulated to mesh livestock and wildlife grazing into a good multiple use program as was intended with the passage of the Federal Land Policy and Management Act of 1976. By using fish and wildlife management data found in the draft statement, as well as advice from the Utah Division of Wildlife Resources and the Fish and Wildlife Service, a better program could be formulated for these resources. The proposed action is primarily a cosmetic treatment of existing condition proposed to perpetuate the status quo. However, if given a choice, we would support alternative "F" with some amendments. Our general recommendations for consideration are as follows:

Pronghorn antelope

Pronghorns in the Parker Mountain Planning Unit make up one of the most important herds in the State of Utah. In addition to providing significant antelope hunting opportunity, this herd provides surplus animals for transplanting to other suitable habitat throughout the state.

Figure 2-22 on page 2-55 identifies all or parts of seven allotments to have crucial or normal antelope winter range (Post Hollow, Cyclone, Flat Top, Long Hollow, Terza Flat, Deleeuw and King Sheep).

Table 1-11 shows all these same allotments are grazed by sheep, and all except cyclone is grazed during the winter, a critical time for antelope.

9.1 Antelope and sheep are well known to have a great dietary overlap (Schwartz and Nagy, 1976). This competition leads to overutilization of preferred vegetation while other available forage that would be eaten by cattle may be underutilized.

We recommend livestock use on these seven allotments be changed from sheep to cattle to be more compatable to the needs of both antelope and livestock.

Mule deer

9.2 The Parker Mountain Planning Unit has considerable crucial deer winter range for animals summering on the Fish Lake and Dixie National Forests (Figure 2-22). If the proposal is implemented the deer winter range would not meet the needs of deer in the long term (pages 3-42 and 3-45). Livestock would continue to compete for winter forage either by eating it before deer arrive on the winter range or compete directly with deer when both occupy the range at the same time. On those allotments with crucial deer winter range it would appear advantageous to change the season of use or reduce livestock numbers to lower this competition with deer. Early spring grazing, between greenup and July 1, would probably benefit deer and yet allow a greater number of livestock AUM's on the same areas.

Livestock grazing should be eliminated on those allotments adjacent to the ranches where deer damage is occurring. This would make all the forage available for deer and "shortstop" them before damage occurs.

Sage Grouse

Sage grouse are unique birds that are totally dependent upon a single plant species, big sagebrush (artemisia tridentata), for their livelihood. Leaves of sagebrush make up their entire diet from October through May. Breeding grounds are openings in wintering sagebrush habitat. Nests are usually located under sagebrush plants within two miles of the breeding grounds. Sagebrush stands are used for loafing, shelter and/or cover during some part of the day throughout the year. Sagebrush is absolutely essential to their survival.

There are many millions of acres of sagebrush in the intermountain west but only a small part of it is habitat suitable for sage grouse. Unfortunately, many sagebrush stands that can be easily and effectively eradicated may be supporting wintering sage grouse. Before any sagebrush eradication is attempted on public lands, a thorough examination should

9.1 Response: The dietary overlap and competitive nature of sheep and antelope is recognized in the EIS. Forage allocations have been made for both sheep and antelope on the allotments mentioned above. In all allotments mentioned, the forage allocation is sufficient for both. However, proposed allocations for antelope on these allotments represents 100 percent of estimated current use, and over-utilization could occur if the herd size increased above the current level. The objective of the proposed action is to provide AUMs for the existing herd level.

9.2 Response: The alternatives in Chapter 8 Page 8-153 discuss the impacts on deer that would result from elimination of livestock use.

Complete "short stopping" of deer migration from foothill ranges to farms and ranches in the winter probably would not occur even if sufficient forage was provided because of deer habits and forage preferences.

be made for evidence of winter grouse use. Winter areas can be determined any time of the year by surveying for winter droppings. These droppings are resistant to weathering and are easily identified. We recommend no sagebrush treatments where sage grouse would be affected. 9.3

There are 2,400 acres of sagebrush proposed for chaining to improve the range for livestock (Table 1-4 and page 1-16). Sage grouse winter range is not indicated in the Seven Mile allotment; however, we still recommend the proposed sagebrush be searched before chaining for evidence of winter sage grouse use. If evidence of sage grouse use is found, we recommend that habitat be managed following the guidelines recommended by Braun, Britt and Wallestad, 1977 and/or Call, 1979.

9.3 Response: Your recommendations are provided for in the EIS. See Page 1-28. We are also bound by cooperative agreement to coordinate any disturbance of sage grouse habitat with UDWR. Page 1-30 has also been changed in the final EIS to reflect your concerns.

Aquatic - Riparian

Aquatic and riparian habitats are so closely related that management programs impacting one will usually affect the other in a similar way and for that reason we will discuss them together.

9.4 There are 11 streams with about 20 stream miles on public lands in the Parker Mountain Planning Unit (Table 2-4 and page 3-40). Eleven and one-half miles of them are trout habitat (Table 2-22 and page 2-63). Most of this trout habitat is in poor to fair condition, but all has a good potential for improvement (Table 2-22). The draft statement adequately documents that grazing streambanks destroys fish habitat by trampling, removing streambank cover, promoting soil erosion and increasing sedimentation, and that only complete protection from livestock will allow the fish habitat to improve (page 2-63; Duff, 1977; Kimball and Savage, 1977). Rest-rotation grazing schemes have failed to promote fish habitat recovery, and even trespass livestock seriously set back aquatic habitat recovery (Duff, 1977). These factors were disregarded when the proposed grazing plan was selected. Therefore, if this proposal is implemented, fish habitat in these streams will continue to degrade.

We recommend all the streams, including the nongame fish streams, be protected from livestock use, except that part of the Fremont River in the Hickman allotment which will be discussed later. All streams contribute to water quality problems affecting fish whether they are established fisheries or not.

9.4 Response: See response to Comment 9.3.

9.5 In our opinion, changing the season of use on the Hickman allotment from summer to winter along 0.75 miles of the Fremont River would not result in the fish habitat improvement predicted in Table 1-10. Although there are no known studies to us that support or refute this theory, we believe the insulating effect of snow, generally damper soil and occasional warm periods will permit continued excessive trampling. In the absence of such data however, we recommend this 0.75 miles of stream be used as a study area. We propose one-half of the streambank receive total protection from livestock use and the other half to be used as proposed. Long-term monitoring of the effects of the two treatments would test this hypothesis.

9.5 Response: Further detailed analysis following initial planning indicates the expected improvement, as shown on Table 1-10, would not occur. Refer to Chapter 3 analysis of the proposed action (Page 3-40). The impacts column on this page projects that stream habitat condition along that portion of the Fremont River which runs through the Hickman Allotment would deteriorate from "high fair" to "fair". The study suggested in your comment is a good one which could be implemented in the future, even though it is not proposed in this EIS.

The riparian habitat type has a value to terrestrial and aquatic life far greater than the amount of this habitat type in the ecosystem would suggest. This value is based on its importance to a large number of terrestrial species that depend upon it for food and cover and its capability of improving water quality through watershed protection, reducing soil erosion, sedimentation and coliform in the water.

9.6 Data on the amount of riparian habitat is incomplete (Table 2-18), however it is not expected to amount to a large acreage figure or represent many AUM's. We recommend all riparian habitat not already considered by the above aquatic habitat recommendations, be identified and some action be taken to protect it from livestock use, thereby converting its use to wildlife forage and cover, watershed protection and water quality improvement.

9.6 Response: Data on riparian habitat is limited, only four of eleven streams (see Table 2-18) on this planning unit have been inventoried to date (September, 1979). The effects of complete protection of riparian habitat from livestock grazing are analyzed in the Elimination of Livestock Grazing Alternative, and the option to protect all riparian habitat is available to the decision maker.

Specific Comments

9.7 Page 1-49, last paragraph under 4. Continue With Continuous-Seasonal Grazing With Adjustment of Grazing Allocation - Winter, it states, "Reduced livestock stocking rates are proposed to reduce utilization of the key browse species to no more than 60 percent of current year's growth." (1) does this mean livestock would be permitted to use 60 percent of the forage's annual growth? (2) would all wildlife use constitute over use? (3) if 60 percent of the annual growth on key forage plants is to be shared between livestock and wildlife what factors are going to be used to divide the forage and how will these factors be weighted?

9.7 Response: Total utilization by livestock and wildlife would be limited to 60 percent. The text has been revised on Page 1-19 item 4 to indicate the methodology used to adjust wildlife and livestock use as necessary to meet the 60 percent utilization limit.

9.8 Page 1-30, f. Pinyon-juniper and Sagebrush Control and Seeding. We recommend adding, "all proposed sagebrush eradication programs would be proceeded by a thorough search for evidence of winter sage grouse use. If found, eradication plans would be reconsidered and the habitat managed following the guidelines for management of sage grouse habitat according to Braun, Britt and Wallestad, 1977 or Call, 1979.

9.8 Response: See response to Comment 9.3.

9.9 Page 1-30, f. Pinyon-Juniper and Sagebrush Control and Seeding

Correct the following - Treatment would not be done within 1/2 mile of riparain areas and sage grouse strutting grounds, to read, Treatment . . . riparian areas and within 1.86 miles (3Km) of sage grouse strutting grounds (see Braun, Britt and Wellestad, 1977).

9.9 Response: See response to Comment 9.3.

Page 1-32, Table 1-10 statements under MFP-1 conflicts. Competition for the forage between livestock and antelope would occur if sheep are the livestock class grazed. Significant reduction in competition between livestock and antelope could be achieved by changing the class of livestock from sheep to cows. See our general comments on pronghorn antelope.

Page 1-44, final paragraph on crop depredations. We believe deer (or other big game) depredations could be reduced by alloting forage on adjacent public land allotments to the big game species causing the damage. Haystack damage is not limited to the amount of hay deer eat, but what they ruin by trampling and urinate and defecate on. The livestock

AUM's lost by eliminating grazing would be less than the AUM's worth of hay now lost by big game depredations. It should be recognized overgrazing natural forage caused deer to seek the alternative food in the first place. (See our comments on deer).

9.10 Page 2-63, f. Other animals add: Gambel quail.

9.11 Page 3-64 in Analysis of Impacts on Social Attitudes and Expectations, Impact item 3rd paragraph "The proposed ...from 2039 AUMS to 2839 AUMS (139%) ...," The reported increase is 28% not 139% as reported.

We thank you for the opportunity to comment on the draft statement.

Robt H Shields

9-10 Response: The text has been revised on Page 2-63 to add Gambel's quail.

9.11 Response: The proposed increase as it is printed in the draft EIS is in error. The correct figure is 39 percent (2,839-2,039/2,039 = 0.39). The text has been changed to show the correct number.

THE PREDATORY ANIMAL
PROTECTION ORGANIZATION

321 North Main St.
Salt Lake City, Utah 84103
801-364-5992

Board of Trustees:

Norinda D. Burbidge - President
Jeffrey N. Dean - Field Biologist
Leona K. Burbidge - M.D.

10

August 27, 1979

Utah State Office
University Club Bldg.
136 East South Temple
Salt Lake City, Utah 84111

To Whom It May Concern:

We of the Predatory Animal Protection Org. challenge the adequacy of the Parker Mountain Grazing Management D.E.I.S.

10.1 The reason for this challenge is the fact that on page 1-40 (the last paragraph), you people mention extensive predator control being conducted by the U.S. Fish & Wildlife Service, but there is no place in the statement where you analyze the impact of this extensive control on the environment and its inhabitants.

Predators are natural inhabitants of this management area and if it wasn't for your amourous feelings towards the DAMNED Livestock we would not have to endure the sensless slaughter of bear, mountain lion, coyotes, and bobcats. (which are potentially an endangered species).

We strongly recommend that your final statement analyze the impacts of grazing upon predators and your extensive control of them.

If this recommendation is not complied with, we will seek litigation possibly involving Defenders of Wildlife.

Sincerely,

Norinda D. Burbidge
President
Predatory Animal Protection Org.

Hand Delivered

NDB/fm

—FOR A BALANCE OF NATURE—

10.1 Response: The question of predator control in the case of the Parker Mountain area involves an interrelationship between the BLM, and U.S. Fish and Wildlife Service, in cooperation with the local livestock operators. The analysis of predator control in the area is outside of the scope of this environmental impact statment, but has been analyzed by the U.S. Fish and Wildlife Service in an environmental impact statement, U.S. Fish and Wildlife Services' Mammalian Predator Damage Management for Livestock Protection in the Western United States (FES. July 29, 1979). Predator control is not expected to change as a result of the proposal or any of the alternatives. However, the text has been changed in the paragraph referred to in this letter. See page 1-40 in the text change section.

11

COOPERATIVE EXTENSION SERVICE
UTAH STATE UNIVERSITY
UMC 49
LOGAN, UTAH 84322

Utah State University and the U. S.
Department of Agriculture Cooperating

August 28, 1979

Mr. Donald L. Pendleton
District Manager
Bureau of Land Management
Richfield District Office
150 East 900 North
Richfield, UT 84701

Dear Mr. Pendleton:

I appreciate the opportunity to review and comment on the "Parker Mountain Grazing Management Draft Environmental Impact Statement". Please accept the enclosed comments, questions, suggestions, and criticisms which are intended to be constructive. These comments are submitted with the purpose of encouraging objective and accurate assessment of impacts and trade-offs which will lead to wise land use decisions that are sensitive to the needs of the rangeland resource, other resources, and the land users.

Sincerely yours,

Roger E. Banner

Roger E. Banner
Extension Range Specialist

RER:ja

Encl.

Comments--Parker Mountain Grazing Management Draft Environmental Impact Statement

11.1 P. 1-5 Ref. to Proposed Action

Was the reduction of livestock grazing use on 11 allotments necessary due to 386 AUM difference in 1956-57 and 1975-76 surveys or due to some changes in forage allocation among rangeland uses/users?

11.2 P. 1-10 Ref. to Allotment Objectives

Key species can be used as indicators of plant community response to grazing as well as other environmental factors such as climate. In the trend analyses done, were climatic factors such as precipitation and temperature (from records) used in the interpretation to allow better identification of causal factors responsible for the particular plant community responses? If so, how were they incorporated into the interpretation?

11.3 P. 1-14 Ref. to grazing proposals

Allocation of additional forage realized must be based on the "kind" of forage realized since animal species have different dietary preferences. It does not appear reasonable to assume additional forage will all be suitable for wildlife.

11.4 P. 1-10 Ref. to grazing proposals
1-14

Have proposals been coordinated with management of land under other control or ownership? When are "turn-on" dates of the National Forest System and State lands? What efforts to coordinate land use activities have been made with private land owners? Will gaps between grazing use as proposed on Public Land and National Forest System lands or State land occur?

11.5 P. 1-16 Ref. to seeding proposal in Component 3.

I suggest that grazing of seeded areas be allowed based on plant establishment as determined by field observation rather than by adhering to specified dates. The test for establishment should be whether or not herbage can be removed by pulling without uprooting the plant.

11.6 P. 1-17 Reference to Component 4 of the proposal

Established trend studies available indicate a downward trend. Are studies available on ungrazed areas that would aid interpretation of these plant community responses? Due to recent periods of low precipitation, downward trend may be related to climatic factors. I suggest establishment of additional trend and climatic studies on both grazed and ungrazed areas. This would assist in identifying causal factors in observed plant community responses over time.

11.1 Response: Reduction on the 11 allotments was due to a difference in range survey as well as increased allocations to wildlife. A complete discussion on this change in allocation can be found on Page 1-17.

11.2 Response: Climatic factors were used to help interpret plant community responses. See pages 2-2 and 2-3 for records used and pages 3-28 and 3-29 for an example of the way this information was applied.

As stated on Page 3-28 in the forage condition trend portion of the vegetation section of Chapter 3, the downward trend in forage condition is partially due to 6 years of less than average precipitation. Additionally; certain exclosures within the planning unit, such as the Terza Flat exclosure (see Figure 2-20 Page 2-47) indicate how plants respond to various degrees of use by wildlife and livestock. These exclosures portray graphically plant response to different uses under identical climatic conditions.

11.3 Response: Actual use/utilization monitoring would detect availability of additional forage. All additional forage would be allocated based on specific animal needs and preferences.

11.4 Response: The proposals have been coordinated with local Forest Rangers and the State of Utah land managers. Most of the season of use dates have not been changed. Exceptions Hickman, Deleeuw, Grover, and Hector Hollow allotments.

Where dates do not match with grazing on other lands, those livestock do not use adjoining federal or state lands. No gaps in grazing use were identified.

11.5 Response: It is BLM direction and policy that after a large investment has been made in rangeland treatment, such as seeding, the seeding will be given a chance to become completely established. Livestock grazing will be deferred for a minimum of two growing seasons (immediately following treatment). Minimum periods are based on plant ecological-physiological principles. The soil should be firm enough and plants well enough established so that damage does not occur from grazing use. The dates and grazing schedule shown in component 3 is based on the above policy. It will, however, be further addressed in the specific allotment management plan, (ref. BLM Manual 7410.24).

11.6 Response: Trend studies were established in 1974-1975 within grazed and ungrazed areas to aid in interpretation of plant response to grazing and climatic factors.

Exclosures have been established within the Parker Mountain Planning Unit on Pine Peaks, Jakes Knoll, Terza Flat, and Dry Lake. There are trend plots inside and outside of these exclosures which help indicate responses of plants to grazing and no grazing. The precipitation inside and outside of the exclosures is the same. These exclosures show that the downward trend cannot solely be attributed to precipitation as trend is up inside the exclosures and down outside.

11.7 P. 1-19 Ref. to Component 5 of Proposed Action

Will utilization measurements be made by weight? Response of vegetation to various levels of use reported in research publications generally refer to utilization by weight.

11.8 Lead time for removal of livestock proposed in this component appears too short to be realistic since ranchers are engaged in many equally important and time consuming activities.

Monitoring activities proposed are good and should be included in all components of the proposal. Component 1, "No Livestock Grazing", should include a wildlife exclosure so levels of wildlife use can be evaluated.

11.9 P. 1-22 Reference to all Components of the Proposal

What land use changes on lands under other ownership or control will result from implementations of the proposals? Will flexibility be available that will allow mitigation of adverse impacts on lands and resources other than those controlled by BLM?

11.10 P. 1-22 Ref. to monitoring

Monitoring activities proposed are much needed and should receive highest priority in land management activities. I would suggest that the same monitoring efforts take place on ungrazed areas and/or exclosures so land use activity effects can be isolated from other environmental effects beyond the control of management.

11.11 P. 1-27 Ref. to Tables 1-9

Under Component 4 of the proposal forage surveys on six allotments are proposed to re-estimate carrying capacity. Due to limitations that exist in all methods of estimating carrying capacity, I suggest that you leave stocking rates as they are and make adjustments as trend/climate/actual use/utilization studies indicate the need. Time, money, and effort would be better spent in initiation of monitoring efforts than re-surveying.

11.12 P. 1-31 Ref. to Allocation of Vegetation

Were forage allocations to livestock and wildlife reduced proportionally where insufficient forage was competitive forage? If not, what rationale was used in this allocation process? What is the trade-off?

11.13 P. 1-40 Ref. to interrelationships of lands under other ownership or control

The interrelationships appear to be recognized. What efforts have been made to coordinate the management of the various lands?

11.7 Response: Utilization measurements would be accomplished by weight measurements and estimates of percentage utilization by weight on transects in key areas. Studies would include comparing actual use on unprotected plants and vegetation protected by exclosures and utilization study baskets (cages).

11.8 Response: The livestock permitted on BLM are the responsibility of the livestock operator. They should be aware of the conditions on the allotments through their own observations and through consultation with BLM range management specialists. The removal of livestock as proposed would be made a condition of the grazing permit and the livestock operators would be expected to remove their stock, when their allocation of the forage had been achieved.

11.9 Response: Persons and agencies responsibile for these "other lands" will have flexibility to provide mitigation so long as it does not cause resource damage on public lands.

11.10 Response: Condition, trend, composition, and production studies are part of the monitoring and study program. Some of these studies were established in 1974, 1975. Similar studies would be established in conjunction with the proposed exclosures.

11.11 Response: It is BLM policy (CFR 43 Part 4110.3-2, and PL 94-579 Sec. 402) to take corrective action to make adjustments in range use where poor range conditions on allotments exist. The six allotments mentioned presently show downward trend and apparent overuse of key forage species. Current grazing capacity determinations are needed to make a better initial allocation of forage. A 1 year delay in adjustments on the six allotments would be proposed until inventory data can be obtained.

11.12 Response: Both the Taylor Grazing Act and the Federal Land Policy and Management Act, mandate that wildlife is a recognized public land resource and that there will be a sufficient allocation of forage to provide for a reasonable number of wildlife on the public land. Detailed analysis of the Parker Mountain Planning Unit showed that even though big game were, historically and to date, present in allotments, AUMs of forage were reserved on only some of them. The allocation of forage in this proposal provids forage for wildlife where it is needed. It generally redistributes the existing wildife AUMs from allotments which had too many to allotments which had none. Trade-offs are discussed in Chapter 3.

11.13 Response: Chapter 9 outlines the efforts of coordination and consultation in connection with this proposal.

11.14	P. 2-5 Ref. to sediment yield How much sediment yield would be expected from the eastern portion of the planning unit if it were not grazed at all?--if it were lightly grazed?--if it were moderately grazed? If this information is not known, it seems that the "overgrazing" assumption is premature.	11.14 Response: If the eastern portion of the planning unit were not grazed, the estimated sediment yield would drop to 0.5 acre-feet per square mile per year. It is estimated to be 0.8 acre-feet per square mile per year with light grazing and 1.5 acre-feet per square mile per year with moderate grazing. These estimates are based on expected changes in ground cover, upland erosion, and channel erosion/sediment transport. The last two could be expected to be reduced as ecological condition approaches a climax or high seral stage.
11.15	P. 2-39 Ref. to Table 2-14 In northern Utah, Smith and Doell (1968) determined that ranges used by big game in winter should be grazed by cattle only prior to July 1 if use of bitterbrush is to be held to a minimum. A review of this publication may yield additional information that should be considered. The complete citation is as follows: Smith, A. D. and D. D. Doell. 1968. Guides to allocating forage between cattle and big game on big game winter range. Utah State Div. of Fish and Game Pub. No. 68-11.	11.15 Response: Bitterbrush exists in significant amounts on only three allotments, Co-op, Cyclone, and Seven Mile. Proposed grazing would be completed in the spring prior to July 1 on all three allotments. Fall grazing on Fishlake and Cyclone from 10/1-11/15 would cause some livestock use to be made of bitterbrush. Adjustments might be needed after study and monitoring of any noted adverse effects to the browse plants.
11.16	P. 2-46 Ref. to riparian condition No reference is made in this rating to inherent physical limitations of the site. What species of plants are to be used as key species for riparian areas? Have areas such as the fish hatchery on Pine Creek been used as a reference for potential or for evaluation and assessment of the impacts of grazing on riparian areas? Actual grazing use is probably known on this area.	11.16 Response: The species of plants that are key in riparian areas were inadvertenly omitted, they have been added to the text on Page 2-46. The fish hatchery is situated on a large wet meadow and most of Pine Creek flows over rugged, steep, rocky terrain. Therefore, the grazing capacities and potentials of these two areas are not comparable. Note that key species added to Table 2-46 are those that are well adapted to streambanks and not necessarily wet meadows. Grazing capacities and utilization were not separated out for purposes of the proposal.
11.17	P. 2-57 Ref. to big game habitat ratings, Table 2-21 Habitat ratings do not necessarily take ecological potential of the rangeland into consideration. Do habitat ratings correlate well with site potential on this planning unit?	11.17 Response: Habitat ratings are very seldom related to ecological potential. Some highly productive habitats are far from ecological potential. Experience has shown that in most cases so called "climax" or "ecological potential" is very unproductive for production of wildlife. See Page 2-59 and Appendix II-9 page 46 for explanaton of habitat ratings.
11.18	P. 2-81, 82 Ref to sociology Sociological information presented is very limited given the consideration that many of the decisions made will be made from an array of alternatives that are biologically possible. To make socially acceptable decisions within the framework of biological possibilities requires additional sociologic information.	11.18 Response: The information in this section builds a foundation for the impacts presented in Chapter 3. Only that social environment that would be substantially affected is described. Additional sociological information is available but was found to be of little value in detailing significant impacts.
11.19	P. 3-38 Ref. to impacts on animal life (sage grouse) Is succulent green forage limiting sagegrouse populations currently? If so, how much, where, and when?	11.19 Response: Yes. The most recent study (Jarvis, 1974) lists brooding areas (area of succulent vegetation) as being a limiting factor for sage grouse. How much is difficult to quantify, it occurs in those allotments which contain strutting grounds and nesting areas (see Page 2-61 and Figure 2-23 on Page 2-62), from the end of May through August.
11.20	P. 3-39 Ref. to impacts on animal life (prairie dogs) Food may not be the factor limiting prairie dogs. In fact, prairie dogs may require more open areas of low to sparse vegetation to allow them to avoid predators.	11.20 Response: The vast majority of the prairie dog towns on the Awapa Plateau are found in "open areas of low to sparse vegetation." Studies on the Awapa (Crocker-Bedford, et al., 1975) indicates that food is a limiting factor.

11.21 P. 3-41 Ref. to impacts on animal life (trout)

Why are all stream habitat conditions predicted to decline in 20 years when there are season of use changes and other changes proposed that are designed to improve the riparian habitat? This assessment does not appear to be consistent with vegetation and erosion assessments.

11.21 Response: There are no grazing systems which have been proven to improve fisheries habitat. It is easy to misunderstand the two terms--Riparian habitat and fisheries habitat. Even though these are closely related, the fisheries habitat deteriorates when undercut banks are deposited into the stream because of grazing animals, and when nitrogenous wastes are deposited into the water. It is difficult, without excluding grazing animals, to maintain overhanging bank vegetation which provides shade and cover for fish.

11.22 P. 3-45 Ref. to overall assessment of impacts to animal life

Since habitat requirements are not well identified, how can a reduction in sage grouse numbers be predicted? Other factors (such as weather and predation) affecting sage grouse have not been recognized in the analysis. It appears that impacts have been extrapolated from a limited number of sources that by no means comprehensively define sage grouse requirements.

11.22 Response: Habitat and range are discussed on Page 2-61 and shown on Figure 2-23 on Page 2-62. Sage grouse requirements are well known and documented in several sources. Some of these studies are referenced in the draft (Page 3-38), and the requirements were considered in analysis of impacts.

11.23 P. 3-45 Ref. to overall assessment of impacts on animal life

The assumption made appears to be--"if any livestock graze the area, riparian habitat will decline". If this is so, how could any riparian areas be in "good condition" since they have been grazed by domestic animals essentially every year since settlement of the area by pioneers? Would not elk, deer, and antelope cause the same kinds of mechanical disturbances along streams that domestic livestock do? The assertion that big game do not extensively use riparian areas is in error. Some deer use riparian habitat along streams almost exclusively. Is use by wildlife expected to cause a decline in riparian vegetation? Many of the riparian plant species are preferred species for deer and elk. The discrepancy between assessment of impacts of grazing and presence of wild and domestic large herbivores is illogical and without basis.

P. 3-50 Ref to analysis of impacts on visual resources

No land use including VRM Class should preclude basic land management information gathering. All exclosures and other facilities for monitoring the basic resource and environmental conditions should be exempted from VRM class restrictions.

11.23 Response: The assumption is not that if any livestock graze the area riparian habitat would decline but more accurately, if livestock are allowed to overgraze a riparian area it will certainly decline. Where riparian habitat remains in good condition along streams within this planning unit, it is because (a) livestock use has not exceeded the riparian zones capacity to sustain such use or (b) that the riparian zone is in good condition because it is inaccessible to livestock. Riley Creek is an example of this.

Conversely though, there have been examples of big game causing riparian zone deterioration. On Parker Mountain, this has not been identified as a problem because big game use along streams has not been nearly as intense as livestock use of these areas.

11.24 P. 3-60 Ref. to economic impacts

It is stated that the proposal (including reducing in licensed use and changes in season of use) that cash expenses per existing ranch animal unit will be reduced and cash receipts will remain the same. The assumption behind this rationale is that ranchers will increase the efficiency of their operations. It seems entirely possible that implementation of the proposal may decrease the efficiency of many of the ranch operations since private lands may be managed under the highest level of efficiency now when constraints such as capital, labor, and irrigation water (resources) are considered. What is the basis for the assumption that there is potential among farms and ranches to increase efficiency of production?

11.24 Response: The basis for this assumption is that livestockmen would make full use of all proposed AUM allocation thereby increasing actual use above present levels. If additional feed were required, ranchers would either produce it themselves or purchase it. It is assumed that where possible, ranchers would take available measures to produce the needed extra feed.

11.25 P. 3-63 Ref. to big game hunting receipts

Who are the recipients of the gross and net incomes reported to result from big game hunting receipts?

11.25 Response: These figures represent the "multiplier effect" of money spent on big game hunting. Therefore, it includes not only hunting and camping equipment dealers but essentially all sectors of economic activity on the state level.

11.26 P. 3-64 Ref. to sociological impacts

If the level of grazing use over the past three or four years has been a voluntary response to drought conditions on cropland and rangelands, would not the livestock operators be rational in finding little or no redeeming values in reductions in their permits? This might appear to be an incentive for ranchers to try to maintain maximum levels of use under adverse environmental conditions.

11.26 Response: The Wayne County Extension Agent has indicated that to his knowledge, the voluntary non-use by permittees on the planning unit was probably due to a variety of reasons including change in class of livestock, greater feed production on private land, and reductions in herd size. Therefore, it cannot be assumed that this non-use is solely in response to drought conditions.

It should also be noted that non-use of alloted AUMs was not used as a basis for any of the proposed reductions. Therefore, it is not rational to view these reduction as incentive to maintain maximum use levels under adverse range conditions.

11.27 P. 8-1 Ref. to alternatives to the proposed action

The array of alternatives presented ranges from no livestock grazing to the current levels. Why was an alternative to maximize livestock grazing not presented? The current situation does not portray the end of the spectrum in maximizing livestock grazing within the limits of the rangeland resource. It appears that the needs of society in the future are viewed only in terms of the recent past. Even currently, some branches of government are calling for increases in rangeland productivity and range livestock production to meet society's needs in the near future (1980 RPA Assessment).

11.27 Response: An alternative to maximize livestock grazing was in fact considered during the planning area analysis process. It was dropped because of analysis of present use and apparent need in the area (only approximately 64 percent of current allocation is being used by livestock), the critical nature of the area for wildlife habitat needs and, the economic constraints of implementing a maximize livestock grazing alternative.

11.28 P. 8-25 Ref. to impact on animal life of no action alternatives

The analysis appears inconsistent with what has actually happened in the last thirty years for most species considered. Have antelope and elk populations been increasing or decreasing over the last twenty years? What has been the trend in sage grouse, prairie dog, and fish populations since the 1950's? Deer populations have peaked, declined, and are now increasing over most of the Intermountain area. How much of this is a response to habitat and how much is a response to other factors? It is not obvious that current levels of livestock use have been the causal agent for a perceived general decline in wild animal populations.

11.28 Response: It has been proven that when grazing (or browsing) animals increase beyond the carrying capacity of the range they experience a decline. The point being made on Page 8-25 is that livestock use has been less than authorized for several years. The extent (or duration) of this non-use was not ascertained beyond the last 3 to 4 years. On the allotments where elk numbers have increased (within the AUMs reserved for them in the adjudication), livestock use has been as low as 35 percent for 10 years. If all the "non-use" livestock were suddenly put on the range (which analysis shows is trending downward) and if the elk and antelope increase to within their authorized (reserved) AUMs, the habitat would decline. It is not the current levels of livestock that would be a problem. As you point out, wildlife numbers have increased under the approximately 64 percent of authorized livestock use. If under the no action alternative, however, livestock are increased to their full authorized number, there would be a probable decline in habitat with a corresponding decline in wildlife.

11.29 P. 8-96, 8-132, 8-166 Ref. to sociological impacts of alternatives that reduce or eliminate forage allocation to livestock

What benefits to society will be foregone by artibrarily reducing or eliminating livestock use on the planning unit?

11.29 Response: Sociological impacts would be local in nature, and benefits forgone could include continuity of present population, lifestyle, and employment in affected areas.

General Comments

Rather than readjusting the livestock use based on new carrying capacity estimates, it is preferable to see increased rangeland use supervision or administration and adjustments in grazing allocations made based on the response of the basic rangeland resource (monitoring). The information gaps that exist currently are in the areas of actual use by livestock and wildlife, potential of the rangeland resource, and response of the rangeland resource to current levels of use by all users. It appears that this suggested strategy for resource management is a viable alternative and should be considered as such. If critics doubt that this approach can or will be carried out if selected, then, there is probably reason to doubt that there will be any improvement in management or follow-up under any proposal or alternative.

Impact assessment generally follows conceivable outcomes considering the shortages of site specific information. However, impacts of livestock grazing on wild animal life seem to be more dogmatically assessed than other areas of concern. This has been done in spite of the fact that this is an area of little site specific information and limited published research from which to extrapolate. I would suggest that some of the "mutually exclusive" philosophy that seems to be present be tempered with a more in depth review of published research and increased site specific data on livestock/wildlife interactions. It may also be desirable to seek better definition of wildlife habitat requirements.

Roger E. Banner

Teasdale Utah
28 August 1979

12

Donald L. Pendleton
District manager.

Dear Sir:

We the permittees on the Miners Mt. Allotment. Feel that the proposal outlined in The Parker Mountain Grazing management. Draft Enviornmental Impact Statement is Not fair, or Correct in proposing a 24% reduction.
For the following reasons.

1- By increasing game numbers is detrimental to the permitted live stock. But we also feel that there is very little if any Competition between the deer and livestock at this time of year.

2- The economic impact is more serious perhaps than the value of the feed. But a reduction on this allotment will effect the whole ranch operation. It will become not feasible to operate, if numbers are reduced.

3- We feel there should be water developments on this range both for livestock & game. Two years out of ten the water has run - (1973 & 1979) depending upon the snow pack.

4- The reseeded area consists of between 1200 & 1600 acres. It seems that the permitted A.U.M's for a 30 day period, is in line with good range management.

5- Pace Ranch own a field adjoining Miners Mt. There is a residence deer herd in this field, and to increase deer population in Miners Mt. merely add to the heard that is already there.
Special hunts have been tried and there is no way to harvest the deer with so much natural cover.

12.1 6- There are 264 A.U.M's on Miners Mt. proper that has been held in suspended Non-Use. This reseeded area was supposed to suplement these Non-Use A.U.M's The B.L.M. has given no consideration this since, its implementation.

Respectfully yours.
Guy E. Pace
Everett J. Williams
Orawell Williams
Dyle Williams

12.1 Response: Range surveys conducted in 1975, 1976 indicated forage production on the Miner's Mountain Allotment was 320 AUMs; 161 AUMs were allocated to livestock and 159 AUMs were allocated to wildlife (deer). There has not been enough improvement in forage to allow for reinstatement of the suspended non-use. However, additional forage may be allocated to qualified applicants for livestock grazing use at the discretion of the authorized officer if this use if consistent with the land use plans.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII
1860 LINCOLN STREET
DENVER COLORADO 80295

13

SEP 4 1979
8W-EE

Donald Pendleton
Bureau of Land Management
P.O. Box 768
Richfield, Utah 84701

Dear Mr. Pendleton:

The Region VIII office of the Environmental Protection Agency has completed its review of the Parker Mountain Grazing Management draft environmental impact statement (DEIS) and offers the following comments for your consideration.

The document is generally well written and comprehensive, although unnecessarily long. The proposed action as described would, on the whole, improve range and water quality in the Parker Mountain Planning unit. However, it is not clear that the proposed action, which includes a substantial number of developments costing $468,700 initially and $49,800 in annual operational and maintenance costs, is the most cost-effective approach to solving existing range quality problems. For example, the additional wildlife allotments could be accomplished by reallocating existing open range rather than spending almost $130,000 for chaining and seeding. Thus, perhaps consideration should be given to reducing present abuses of the range by reducing present grazing levels rather than spending the quantities of money as described for such a low rate of return. Similarly, consideration should be given to seeing that small ranches, not just large and medium sized ranches, benefit from the proposed action.

According to the procedures EPA has adopted to rate the adequacy of DEIS's, the Parker Mountain Grazing Management DEIS will be listed in the Federal Register as LO-1. This means, although we are concerned that the proposed action may not be the most cost-effective approach, we have no objections to the proposed action as described in the DEIS and find the information contained in the DEIS to be adequate. If you have any questions, please contact Dennis Sohocki at (303) 837-4831.

Sincerely yours,

David D Emery
Roger L. Williams
Regional Administrator
for

ADDENDUM

TEXT CHANGES FROM THE DRAFT

The following complete pages contain "Text Changes in the Draft" that have been made as a result of public comments and internal reevaluation. These pages are prepared, and page numbers retained, so that they can be inserted into the Draft Environmental Impact Statement. These "Text Changes" inserted into the draft constitute the Final Environmental Impact Statement

GRAPHICS ERRATA

Figure 1-4 Range Developments

The following footnote should be added to the figure:

Note: Only existing range developments that are directly related to proposed developments are included on this map.

Figure 2-28 Visual Resource Management (VRM) Classes

The Wildlife Allotment and the western-most third of the Donkey Hill Allotment should be identified as Visual Resource Management (VRM) Class II areas.

Figure 2-29 Roadless Inventory Units

The second category is eliminated. The ten roadless inventory units identified in this category are now identified in the top category and should be colored light gray.

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Appendix I-1 shows basic facts and the current grazing situation for this component. Detail concerning the Brian, Rees, Tanner, and Taylor Farm allotments is shown in Appendix I-4. Table 1-5 shows, in detail, the proposed forage allocation prior to seeding, the estimated forage allocation for the first 10 years after seeding, and the long-term grazing allocation after 10 years.

To implement this component, the following developments would be required:

Pipelines	8 miles
Water troughs	4 each
Reservoir	1 each
Reservoir modification	3 each
Fencing	9 miles
Cattleguard	1 each
Chaining and Seeding	4,800 acres

Key forage species outside the seedings are: Indian ricegrass, Letterman needlegrass, and bitterbrush; inside the seedings they would be pubescent wheatgrass, intermediate wheatgrass, and bitterbrush. Grazing use of bitterbrush by livestock during the proposed season (May 16 through June 15) would be minimal if any. Such use would not impair the physiological requirements of this key species to make and store food, maintain vigor, and produce seed. Utilization of the other key species (Indian ricegrass and Letterman needlegrass) would be reduced by the proposed stocking rate in the year a pasture is actually grazed. In addition, these species would not be grazed by cattle for a full year while the pasture is rested from grazing. The combination of these two actions would allow the key species to restore vigor and produce seed.

Monitoring would be done as explained in section C-3 of this chapter.

4. Continue With Continuous-Seasonal Grazing With Adjustment of Grazing Allocation--Winter (11 Allotments, 54,294 acres and 2,361 AUMs)

Continuous-seasonal grazing with adjustment in grazing allocation is proposed on 11 allotments. About 25 percent (54,294 acres) of the public land in the planning unit would be managed under this component. The season of use on the 11 allotments ranges from 7/1 to 5/31. The average season of use is about 10/16 to 3/31. Appendix I-1 shows basic facts, the current grazing situation, and the proposed grazing situation for the 11 allotments under this component. These allotments have been grazed in the winter by both livestock and wildlife. Though no studies have been conducted, it appears that use on key species has been in excess of 60 percent on current year's growth.

Recent range surveys, conducted in 1975 and 1976, indicate that grazing adjustments are needed on four allotments (Lime Kiln, Miner's Mountain, Neff Ranch, and Sand Wash. In addition, seven allotments (Loa Winter, Deleeuw, Terza Flat, Long Hollow, North Fremont, Bicknell and Torrey Town) have a large percentage in poor forage condition and an adjustment in grazing is apparently needed. Current grazing capacity on these latter seven allotments was calculated by comparing their dominant use with known grazing capacities for similar allotments in the area. (Methodology for calculating the capacities is shown in Appendix I-5.)

It is proposed to adjust grazing allocation, and prepare or revise AMPs, on the five allotments as indicated in Appendix I-1. On the seven allotments where grazing capacity has been estimated, it is proposed that an initial reduction would be implemented as shown on Appendix I-1. These reductions would be postponed for 1 year, however, while new forage surveys are conducted to determine capacity. Seven new AMPs would then be prepared and needed adjustments would be made in grazing allocation. For analysis purposes, it is assumed that livestock grazing would be adjusted to about 51 percent of current allocation and big game use to 161 percent of current use.

In order to control livestock use under this component, it is proposed to construct 6 miles of fence. The fence would divide South Spring so that water would be available in both the Long Hollow and contiguous Post Hollow Allotments. Two existing reservoirs in the Long Hollow and Terza Flat allotments would be modified, and a new reservoir constructed in the Deleeuw Allotment (Figure 1-4).

Key forage species are squirreltail, Indian ricegrass, crested wheatgrass, needle-and-thread grass, fourwing saltbush, winterfat, and black sagebrush.

Livestock grazing during the proposed season (winter) for these allotments would concentrate use on browse species. Reduced livestock stocking rates are proposed to reduce utilization of the key browse species to no more than 60 percent of current year's growth. Such use would allow plants to store sufficient food reserves, and leave 40 percent of current growth for seed production. Rest from grazing on these species during critical growth periods in the spring and summer would allow plants to restore vigor and produce seed.

Monitoring would be conducted as explained in section C-3 of this chapter.

Utilization by wildlife and livestock would be monitored. Should monitoring show that utilization of annual growth of key plant species is in excess of 60 percent, numbers of livestock and/or wildlife would be adjusted. Livestock and wildlife numbers would be adjusted using the ratio of livestock forage allocation to wildlife forage allocation given in Appendix I-1 for this component of the proposal.

5. Continue With Continuous-Seasonal Grazing Adjusted by Utilization--Winter
(Nine allotments, 10,543 acres and 565 AUMs)

Continuous-seasonal grazing with level of use adjusted annually by forage utilization is proposed on 9 allotments. About 5 percent (10,543 acres) of the public land in the planning unit would be included under this component of the proposal. The season of use on the nine allotments ranges from 8/16 to 5/31. Average season of use is about 10/16 to 4/15. Appendix I-1 shows basic facts, the current grazing situation, and the proposed grazing situation for these 9 allotments. The long-term objective of meeting projected wildlife needs are also shown.

There is no data on current trend, utilization, and actual use. Due to the lack of data, it is proposed to permit current grazing allocation but condition the permit to allocate utilization on key forage species (squirreltail, Indian ricegrass, needle-and-thread grass, fourwing saltbush, and winterfat) to no more than 60 percent of the current year's growth. Table 1-6 shows the maximum allowable utilization of key species by allotment for the first year of implementation. Calculations for development of this table are shown as Appendix I-6. After the first year, the allocation would be adjusted annually as indicated by the previous year's utilization levels. (For example, if an allotment is to be grazed 30 percent by wildlife and 30 percent by livestock the first year, and utilization for that year shows wildlife needed only 20 percent, then livestock would be allowed 40 percent the next year and wildlife 20 percent.) This kind of adjustment would be made each year for 5 years, at which time 9 AMPs would be written and a firm level of grazing would be allocated. When the permitted percentage use of key species is reached, livestock operators would be notified and livestock would be removed within 5 days. No less than 20 percent utilization of current year's growth would be allocated to livestock. It is assumed that reductions would be necessary after this first year's study, and for the purpose of analysis these numbers are shown on in Appendix I-1.

TABLE 1-7

Implementation and Development Costs

Item	Units	Unit Cost	Total Cost
AMP Preparation and Implementation	82 work months	$1,800	$147,600
Water Troughs	9 each	1,000	9,000
Water Pipeline	16 mi.	2,000	32,000
Reservoir	4 each	4,125	16,500
Reservoir Modification	30 each	3,050	91,500
Fencing (allotment and pastures)	15 mi.	2,000	30,000
Cattleguard	1 each	2,000	2,000
Chaining and Seeding	4,800 acres	27	129,600
Exclosures	3 each	3,500	10,500
Total			$468,700

Source: BLM Parker Mountain Planning Documents, 1978.

TABLE 1-9 (concluded)

Component	Year	Discussion
Continue With Continuous-Seasonal Grazing With Adjustment of Grazing Allocation (Winter)	First	Prepare new AMPs and implement the proposal on five allotments by agreement and decision. Conduct a forage survey on seven allotments to redetermine carrying capacity.
	Second	Prepare seven new AMPs and implement the grazing proposal, including the livestock grazing reduction if needed, by agreement and decision. Construct one new reservoir in the Deleeuw Allotment and modify two reservoirs, one each in the Terza Flat and Long Hollow allotments. Construct 6 miles of fence.
Continue With Continuous-Seasonal Graing Adjusted by Utilization (Winter)	First	Prepare nine new AMPs and implement the complete proposal by agreement and decision. The annual permit would stipulate the level of use allowed on key species and provisions made for immediate removal of livestock when that level of use is reached. Three exclosures would be constructed.
	Second through Fourth	Careful monitoring of utilization on key species would be conducted and grazing use modified as explained in the proposal.
	Fifth	The nine AMPs would be revised and a firm level of livestock grazing authorization would be made through decision.
Continue With Continuous-Seasonal Grazing With Adjustment of Season. (Winter)	First	Prepare an AMP and implement the proposal by agreement and decision.

Source: BLM Parker Mountain Planning Documents, 1978.

All fences would be constructed to allow wildlife movement. Fences would be no higher than 39 inches; the bottom strand would be smooth wire, 16 inches from the ground. Fence would be constructed of all wire strands.

b. Water Troughs

Nine water troughs are proposed. About 1 acre of surface disturbance would result from construction of all nine. The following special design features would be met:

Small animal access and escape ramps would be provided in each water trough.

The lip of the water troughs would be 2 feet or less above the ground.

If waterflow from springs is sufficient, water would be maintained in all troughs between May 1 and October 30.

Overflow discharge would be a minimum of 50 feet from the watering facility and fenced to exclude livestock.

c. Pipelines

An estimated 8 miles of water pipeline would be constructed to carry water from the developed Willow Spring, on U.S. Forest Service land, to areas where water is not now available to livestock on the BLM Seven Mile Allotment. Studies indicate that sufficient water is available at Willow Spring to supply the livestock numbers proposed. An additional 8 miles of pipeline would be constructed to divert water from the existing Antelope Spring pipeline to the Cedar Peak, Hare Lake, Smooth Knoll, Co-op, and Flat Top allotments. A 1 1/4-inch diameter plastic pipe would be buried or laid on the soil surface.

No vegetation clearing or road construction would be permitted for pipeline installations. An estimated 20 acres of surface disturbance would occur during construction of the proposed 16 miles of pipeline.

d. Reservoirs

Four reservoirs are proposed. The water storage capacity would average about 5.0 acre-feet (approximately 1,633,500 gallons). Fill material would come from the area to be inundated by the reservoir. An impervious clay (bentonite) would be obtained from commercial sources and used to seal the bottom and banks to prevent seepage. Approximately 4 acres of surface disturbance would occur during construction of the proposed reservoirs.

e. Reservoir Modification

A total of 30 existing reservoirs in the planning unit would be modified by increaseing their storage capacity. The storage area would be deepened, tapering to a small area at the bottom. Thus, the effective storage capacity would also be increased by reduction of the evaporation and soil infiltration ratios. Loss of water through soil infiltration would be further reduced by lining the storage area with bentonite.

The excavated material would be placed on top of the dam and compacted. The area of disturbance would be limited to the existing storage area and dam.

f. Pinyon-Juniper and Sagebrush Control and Seeding

Pinyon, juniper, and sagebrush on 4,800 acres would be reduced by double chaining. The chain would be dragged over the area once in one direction and then a second time in the opposite direction. The area would be seeded between the first and second chaining with adapted grasses, forbs, and browse. Seeding would be done by aircraft. Uprooted vegetation would be left in place. Standard features for chaining and seeding projects are:

Treated areas would be rested from grazing for two growing seasons.

Edges of the treated area would be irregular and conform to the surrounding terrain.

Untreated strips, about 200 feet wide, would be left along each side of roads.

Steep drainages (over 30 percent slope) would not be treated.

Treatment would not be done within 1/2 mile of riparian areas. Treatment in sage grouse wintering and strutting areas would be done in accordance with the Memorandum of Understanding of April 1, 1979 between the BLM, USFS, UDWR, and SCS, and the Master Memorandum of Understanding between UDWR and BLM, June, 1979. These memoranda provide for coordination in development and establishment of guidelines for buffer zones for water, sage grouse strutting grounds and other crucial areas. The project would be soundly based and carefully planned.

Adapted species of grass, forbs, and browse would be planted. Special emphasis would be given to forb and browse species such as bitterbrush, mountain mahogany, alfalfa, small burnet, and clovers.

Irregularly shaped unchained areas would be left to provide escape cover for wildlife.

g. Exclosures

Three 5-acre exclosures are proposed. Each exclosure would contain two divisions: a 2-acre division would be fenced with a 7-foot-high woven-wire fence to exclude big game, and a 3-acre division would be fenced with 36-inch-high woven-wire fence with a pole on top (to exclude livestock but allow big game entrance). Approximately 1.6 acres would be disturbed during construction.

3. Maintenance

Any repairs that require actual reconstruction of an improvement would be done by BLM. Operational or preventative maintenance required annually or more frequently would be performed by the individuals holding the term permits.

riparian vegetation is generally in good condition. It is felt that changing the season of use from summer to winter could accomplish desired objectives in this allotment.

IV. INTERRELATIONSHIPS

Grazing use of the Parker Mountain Planning Unit is one phase in an overall grazing program of other federal, state, and private lands. Of the approximately 80 livestock operators who use the planning unit, only three do not use other public lands. Table 1-11 shows relationships of grazing on the planning unit with grazing use on other federal and state lands. Parker Mountain provides key seasonal range for many of the livestock operators who use it. Alterations in grazing programs on the planning unit could result in disruption of an operator's year-round operations.

A. FEDERAL AGENCIES

1 Bureau of Land Management

Sixty-five livestock operators in the Parker Mountain Planning Unit graze the same livestock in other BLM units such as the Henry Mountain Resource Area and the Sevier River Resource Area (see Table 1-11).

2. U.S. Forest Service

The U.S. Forest Service administers lands to the north, east, and south of this planning unit. The northern and eastern portions are managed from the Loa Ranger District of the Fishlake National Forest, while the southern part is managed by the Teasdale Ranger District of the Dixie National Forest. A cooperative agreement between the BLM and Forest Service would be necessary to allow use of water from Willow Spring on U.S. Forest Service land. Fifty-eight livestock operators (Table 1-11) on the planning unit graze the same animals on these adjacent Forests, either immediately before entering or upon leaving the planning unit. Most big game animals wintering on BLM managed public land spend summers on adjacent National Forest lands. Increased big game numbers and livestock grazing proposals are compatible with U.S. Forest Service plans and goals. Water needed for the pipelines would come from U.S. Forest Service lands. Agreements or consultation have already been made or initiated with the U.S. Forest Service.

3. The U.S. Fish and Wildlife Service

The planning unit has three endangered animal species (the Utah prairie dog, the American peregrine falcon, and the bald eagle), two proposed endangered (F.R. June 16, 1976) plant species, and two candidate threatened plant species (Welsh, et al., 1975). Consultation with the endangered species unit of this agency is required if adverse impact to one of these species or its habitat is expected. This agency also has responsibility for the animal damage management program developed in conjunction with BLM, Utah Division of Wildlife Resources, and livestock operators.

With the exception of a few allotments, the entire planning unit and surrounding areas are under a program of predator management. Management includes aerial gunning, denning, calling (shooting),

TABLE 2-1

Summary of Climate

Climatic Factor (average)	Elevation 6,000 to 7,500 Feet	 7,500 to 9,000 Feet
Monthly Temperature		
Spring and Summer	55° F. to 65° F.	50° F. to 60° F.
Fall and Winter	30° F. to 35° F.	25° F. to 30° F.
Growing Season (Frost-free days)	80 to 120 days (May to September)	60 to 80 days (June to August)
Precipitation	6 to 8 inches per year as rain and snow.	12 to 20 inches per year as rain and snow.

Percent of Total Annual Precipitation	
Summer (July-September):	47 percent (Intense thundershowers)
Fall (October-November):	13 percent (Rain and snow)
Winter (December-April):	24 percent (Snow)
Spring (May-June):	16 percent (Rain)

Sources: Utah Agricultural Experiment Station, Logan, Utah, 1977; and U.S. Weather Bureau Data, 1892-1911, and 1922-1978.

TABLE 2-2

Annual Precipitation Totals Loa Station[a]

Year	Precipitation (inches)	Year	Precipitation (inches)
1978	6.91	1968	8.04
1977	4.88	1967	8.56
1976	4.11	1966	5.65
1975	6.21	1965	11.01
1974	4.66	1964	6.51
1973	5.92	1963	6.85
1972	7.88	1962	4.72
1971	7.46	1961	10.78
1970	7.24	1960	7.76
1969	11.22		

Source: U.S. Weather Bureau, 1960-1978.

[a] Precipitation records have been kept at this station since 1892, (excluding years 1912 to 1921). This data shows drought periods reaching the lowest annual precipitation in 1935, 1956, and 1976. This represents a 20-year drought cycle since 1926. The 1975-1977 drought was the worst drought period in Utah since 1892.

TABLE 2-13 (concluded)

Allotments	Percent Vegetation Ground Cover	Percent Composition																					Total Composition of Desirable Plants
		Grasses												Forb	Shrubs								
		Blue Grama	Galleta	Squirrel-tail	Letterman Needlegrass	Indian Ricegrass	Western Wheatgrass	Bluebunch Wheatgrass	Crested Wheatgrass	Needle-and-Thread	June-grass	Sand Dropseed	Pungent Muhly	Scarlet Globemallow	Big Sagebrush	Black Sagebrush	Douglas Rabbitbrush	Winterfat	Bitterbrush	Fringe Sagebrush	Bud Sagebrush	Shadscale	Fourwing Saltbush	
CONTINUE WITH CONTINUOUS-SEASONAL GRAZING WITH ADJUSTMENT OF GRAZING ALLOCATION (continued)																							
North Fremont	19	13			1	1									70	T	13							58
Sand Wash	18	13				3				4							26							46
Torrey Town	9	T	39			1						T			3		2					T	T	45
CONTINUE WITH CONTINUOUS-SEASONAL GRAZING ADJUSTED BY UTILIZATION																							
Busenbark	13	18	2	T								1			66		9							60
Donkey Hill	26	50		2		11				3				2	1								T	69
Government Creek	9	35	1			T									10		50						T	96
Grover	13	66										4			17			T					T	87
Horse Pasture	5	11	2			1									38		18					22	T	84
River	5	45	1									5					40	T					T	91
Spring Branch	17	16				2				2		2			68		3						1	56
Teasdale Bench	26	42				T				T				5									1	48
Teasdale Ranch	7	54				T				T		1		21			1						2	79
CONTINUE WITH CONTINUOUS-SEASONAL GRAZING WITH ADJUSTMENT OF SEASON (Winter)																							
Hickman	9	17	14			2				1				1	21		29						11	96

Source: BLM Range Inventories, 1956-57 and 1975-76; and Trend Studies, 1978.

TABLE 2-14 (continued)

Proposed Action Component and Allotments	Common Name	Percent of Composition	Critical Growth Period
CONTINUE WITH CONTINUOUS-SEASONAL GRAZING WITH ADJUSTMENT OF GRAZING ALLOCATION (Winter) (continued)			
Long Hollow	Black sagebrush	T	8/1-10/15
	Winterfat	T	4/5-8/30
Terza Flat	Black sagebrush	T	8/1-10/15
	Winterfat	T	4/5-8/30
	Fourwing saltbush	T	5/1-8/30
Miner's Mountain	Indian ricegrass	8	4/3-7/19
	Crested wheatgrass	25	4/3-7/30
	Fourwing saltbush	T	5/1-8/30
Neff Ranch	Indian ricegrass	3	4/3-7/19
	Winterfat	T	4/5-8/30
North Fremont	Indian ricegrass	1	4/3-7/19
	Letterman needlegrass	1	4/3-7/19
	Black sagebrush	T	8/1-10/15
Sand Wash	Indian ricegrass	3	4/3-7/19
	Needle-and-thread grass	4	4/3-7/19
Torrey Town	Indian ricegrass	1	4/3-7/19
	Shadscale	T	5/1-8/30
	Fourwing saltbush	T	5/1-8/30
	Galleta grass	T	5/1-7/19
CONTINUE WITH CONTINUOUS-SEASONAL GRAZING ADJUSTED BY UTILIZATION (Winter)			
Busenbark	Squirreltail	T	4/1-7/30
Donkey Hill	Indian ricegrass	11	4/3-7/19
	Fourwing saltbush	T	5/1-8/30
Government Creek	Indian ricegrass	T	4/3-7/19
	Fourwing saltbush	T	5/1-8/30
Grover	Winterfat	T	4/5-8/30
	Fourwing saltbush	T	5/1-8/30
Horse Pasture	Indian ricegrass	1	4/30-7/19
	Fourwing saltbush	T	5/1-8/30

e. Forage Condition

Ecological range condition is determined by the current productivity of a range relative to what that range is naturally capable of producing. Ecological range condition is not known for the planning unit. Forage conditions, however, are known; and therefore this environmental impact statement deals only with forage condition.

Forage condition is the present state of health of a range, based on soil erosion conditions and the amount and quality of forage it is capable of producing for grazing animals (including wildlife). It is expressed as good, fair, or poor, based on the percentage of desirable, intermediate, and undesirable plants and soil erosion conditions on the range. Plant desirability is mainly a function of productivity, palatability, nutrition, and dominance under climax or near-climax ecological conditions (see Appendix II-6 for a description of forage condition categories and methodology for determining forage condition classes). Figure 2-20 and 2-21 show examples of good, fair, and poor forage condition ranges.

Forage condition is currently good on 112,088 acres (53 percent), fair on 72,128 acres (34 percent), and poor on 28,841 acres, 13 percent of the planning unit. Table 2-17 shows the forage condition for each grazing allotment within the Parker Mountain Planning Unit.

f. Riparian Condition

Of the 11 streams in the planning unit, only four have been surveyed for riparian vegetation. Of the 67 acres of surveyed riparian zone vegetation along these streams, 47 acres are in good condition (70 percent), 11 acres are in fair condition (16 percent), and 9 acres are in poor condition (14 percent). Table 2-18 shows the condition and acreage of the riparian vegetation of these streams and the allotments involved. The condition rating is based on a stream survey (BLM, 1977a; refer to Appendix II-7 for a description of the survey methods and definition of terms). The condition indicator species for the riparian zone are cottonwood (Populus sp.), Willows (Salix sp.), and Sedges (Carex and Juncus sp.). In drier sites of the riparian zone, bluegrass (Poa sp.) would be observed for vigor and condition.

g. Forage Condition Trend

Forage condition trend describes the changes in forage condition. It is expressed as improving, static, or declining.

Forage condition trend studies have been conducted on 23 allotments that include 182,881 acres or 86 percent of the planning unit's public land. These studies show that all 182,881 acres are declining. Table 2-19 shows the known forage condition trend. Techniques used to determine trend are described in Appendix II-8. Even though empirical data are lacking on the rest of the area, it is the opinion of local range technicians and managers, based on observations, experience, and comparisons to similar allotments elsewhere, that trend is declining on all allotments in the planning unit.

7. Animal Life

a. Big Game

Big game species in the planning unit for which forage has been allocated are mule deer, elk, and pronghorn antelope. Crucial ranges for these species are shown in Figure 2-22.

d. Wild and Free-Roaming Horses and Burros

No wild and free-roaming horses or burros (or range inhabitated by wild horses or burros on December 15, 1971) are found in the planning unit.

e. Fish

Rainbow, cutthroat, brown, and brook trout are the only gamefish in waters on public land in the planning unit. Table 2-22 gives fishery stream data, and Figure 2-23 shows locations on the planning unit. Figure 2-24 contains typical examples of the various streambank conditions referred to in Table 2-22. Only the Fremont River, Riley Creek, Pine Creek, Road Creek, Fish Creek, and Mill Meadow Reservoir presently support significant game fish populations. Of approximately 23 miles of streambank bordering trout waters on public land, all except 0.50 miles are accessible to livestock. Approximately 10 percent of Mill Meadow Reservoir is located on public land administered by BLM, with the balance on U.S. Forest Service lands.

Some waters support endemic non-game fish such as suckers, sculpin, and dace. No threatened or endangered fish occur on the planning unit.

Continuous grazing from May to October each year on public land on Road Creek, Riley Creek, Pine Creek, Fish Creek, and Fremont River has removed nearly all willow and cottonwood saplings and destroyed the shade canopy. Lack of wintering habitat, cover, and low streamflow limit the trout population in the planning unit to somewhat less than could otherwise be expected (May, et al., 1978-1979). However, about 4 miles of Fremont River in the River Allotment has received light grazing use and is in fair to good condition. Limiting factors to productive aquatic-riparian and fisheries habitat and populations are vegetation canopy removal, streambank trampling, soil erosion, and streambed sedimentation. The shoreline and dam of Mill Meadow Reservoir on BLM administered lands are devoid of riparian vegetation due to extreme fluctuations of water levels.

f. Other Animals

Many other game and non-game birds and mammals are found within the planning unit. Game species include black bear and mountain lion (cougar), in limited numbers; and at static population levels cottontail rabbits, small carnivores, jackrabbits, and aquatic furbearers. Mourning doves, chuckar partridge, blue grouse, and Gambel's quail are abundant upland game bird species. Non-game birds are represented by at least 13 species of shorebirds and 141 species of songbirds, waterfowl, and raptors.

Reptiles are found unit-wide and amphibians are found in the riparian areas along the Fremont River, its tributaries, and in reservoirs.

8. Archaeological Resources

Forty-one archaeological sites have been recorded within the boundaries of the Parker Mountain Planning Unit: 23 on BLM-managed public land, eleven on private land, and seven on state land. Three of these sites appear to be eligible for nomination to the National Register of Historic Places. Two of them are administered by the BLM; the other is on private land.

The only prehistoric group known to have inhabited this area is the San Rafael variant of the Fremont Indian culture. (There is, however, a possibility of some utilization of the area by the Kayenta Anasazi.) The San Rafael Fremont, dating from approximately 700-1200 A.D., are known for their crushed-basalt and the cattle use the planning unit during the spring grazing season (April 15 to June 30). Cows generally give birth to calves on private farms and ranches during the early spring, and are then trailed, with their calves, to the planning unit for the grazing season. Most cow-calf herds are then moved to U.S. Forest Service lands or to the State Land Block where they range for the summer, until they return to the planning unit or to private land in the fall. All except three of the cattle operators of the unit run fewer than 100 head of cattle.

All but two of the sheep operators of the unit run fewer than 500 head of sheep. In the larger allotments, the operators combine their herds into one cooperative herd of a larger size. Sheep grazing on the planning unit is normally fairly well dispersed through fall, winter, and spring (September 1 to June 30), with the most use during the winter. Most of the operators summer their sheep on adjacent U.S. Forest Service land.

b. Types of Management

Cattle on allotments under continuous-seasonal grazing graze with little control on their movements. Some operators place salt on ridges or do range riding to move their cattle into areas that they might not otherwise graze.

Sheep on allotments under continuous-seasonal grazing are herded and generally use all parts of the allotments, especially in winter when there is snow available as a source of water. These allotments are generally not cross-fenced since the sheep are moved about on the allotment by the herder.

c. Production Characteristics

Calving is generally from February through April on private farms or the allotments. Calves weigh between 120 and 200 pounds when they are taken to the summer ranges. When cattle are moved off the summer ranges at the end of October, calves are weaned and sold at a weight between 350 and 430 pounds.

Lambing is in March or early April. The lambs are usually cut out of the herd and sold in October or November when they weigh between 75 and 85 pounds at that time.

12. Wilderness

All roadless areas, 5,000 acres or larger (roadless inventory units), of public land administered by BLM are being inventoried for wilderness values. Appendix II-11 summarizes BLM's wilderness review process.

Thirteen roadless inventory units, listed on Table 2-25 and shown on Figure 2-29, have been identified within the planning unit. Two roadless units were reviewed for wilderness values in an accelerated wilderness inventory as a result of the proposed Intermountain Power Project. This inventory, completed in March, 1979, determined that the two roadless units did not have wilderness character and they have been excluded from further wilderness review. The initial inventory phase of the wilderness review process was completed on the other eleven roadless units in August, 1979. The initial inventory determined that ten of the eleven units did not have wilderness character and they have also been excluded from further wilderness review. Only one unit was identified in the initial inventory as possibly having wilderness character, and is presently undergoing more intensive inventory.

TABLE 2-25

Roadless Inventory Units

Unit	Public Land Acreage	Inventory Recommendation[a]	Current Management Status[b]	Sources[c]
UT-050-210	18,250	1	A	1
UT-050-211	5,790	1	A	1
UT-050-212	9,400	1	A	2
UT-050-213	7,400	1	A	2
UT-050-214	9,120	1	A	2
UT-050-215	6,240	1	A	2
UT-050-216	7,800	1	A	2
UT-050-217	25,840	1	A	2
UT-050-218	8,440	1	A	2
UT-050-219	17,000	1	A	2
UT-050-220	10,200	1	A	2
UT-050-221	19,720	2	B	2
UT-050-222	7,900	1	A	2

Notes: [a] Inventory Recommendation:

1--The unit has no wilderness character and has been excluded from further wilderness inventory.

2--The unit may possibly have wilderness character. The unit is undergoing more intensive inventory.

[b] Current Management Status:

A--The unit is no longer subject to interim management protection.

B--The unit is subject to interim management protection. It must be managed in a manner that will not impair any suitability it may have for Congressional wilderness designation.

[c] Sources:

1--IPP Accelerated Wilderness Inventory, March, 1979a.
2--Initial Phase, BLM Initial Wilderness Inventory, August, 1979b.

As long as the unit is undergoing wilderness review, it must be managed in a manner that will not impair any suitability they may have for Congressional wilderness designation.

13. Economics

a. General Characteristics

The people of Wayne County are economically dependent upon having access to and using the natural resources in and near the planning unit. The livestock industry and the production of livestock forage on public lands has traditionally been a major element in the Wayne County economy. Many livestock operators work at other jobs, however, and the livestock operation may or may not be their primary source of income.

b. Income

The annual per capita personal income in Wayne County was $2,423.00 in 1971 and $4,053.00 in 1976--considerably less than the State of Utah which was $3,427.00 and $5,350.00 for the respective years.

In 1976, earnings (labor and proprietor's income) from the farm sector in Wayne County were $532,000.00 (12.1 percent of total earnings), representing the third-largest sector in the county. The largest sector was government (Federal, State, and Local) with $1,865,000.00 (42.6 percent of total earnings), and the second-largest was retail trade with $555,000.00 (12.7 percent of total).

The current estimated gross annual expenditure value of big game hunting (deer, antelope, and elk) to state and local economics, generated within the planning unit, is $376,800.00. Of this, the net direct and indirect income is $165,792.00.

c. Employment

In 1976, Wayne County total employment was 705. Of these, 194 (28 percent) were employed in agriculture, a decrease from 206 (35 percent) in 1971. By way of comparison, the State of Utah had farm employment of 21,361 in 1971 and 20,544 in 1976 representing 5 and 4 percent of state total employment for the respective years (Bureau of Economic Analysis, 1978).

Of 104 Wayne County farmers, 16 (15 percent), worked from 1 to 99 days off the farm during 1974. Twenty-one others claimed from 100 to 199 workdays off the farm, with 21 reporting more than 200 days. The remaining 46 farmers (44 percent) reported no workdays off the farm (Census of Agriculture, 1974).

It is estimated that hunting and fishing on BLM-administered land add about eight jobs to the Wayne County economy (Parker Mountain PAA, 1978a).

d. Taxes

Wayne County, like most counties in Utah, depends heavily on property and sales taxes for revenue. In 1978, $228,057.00 of the tax revenue in Wayne County came from property taxes, $33,316 came from local sales taxes (Utah Foundation, 1979).

e. Ranch Economics

Ranching operations that use the planning unit were divided into small, medium, and large scales. Average ranch budgets were then developed for each scale. These budgets, displayed in Table 2-26, show the revenues and expenses for the "average ranch" within each scale and provide baseline data for subsequent calculations. The assumption inherent in this approach is that individual operations within any one scale are sufficiently represented so that any conclusions applied to the "average ranch" scale would also apply to the majority of its individual operations. However, it should be noted that wide differences may occur among individual operators.

Small-Scale Operations

Of the 99 livestock operators in the Parker Mountain Planning Unit, about 37 percent are in the small-scale category. These ranches have an average of 61 animal units (AU) and forage requirements of about 732 AUMs annually. All of the small operators also graze livestock on other public lands--Dixie National Forest, Fishlake National Forest, State land, or other public lands.

Table 2-26 includes data from a typical small-scale ranch budget. The average gross income received is estimated at $308.75 per AU with $200.12 of cash expenses per AU. The operator's net annual ranch income is $70.35 per AU and $4,268.00 per ranch. Typically, these ranchers supplement this income with an off-ranch job.

Medium-Scale Operations

About 22 percent of the planning unit livestock operators operate medium-scale ranches. Ranchers in the medium scale run from 90 to 135 AUs and average 105 animal units. This is equivalent to an average of 1,260 AUMs annually. In addition, all of the medium-sized operators also obtain forage from other public lands.

These operators have an average annual gross income of about $353.28 and net ranch income of $43.51 per AU or $4,554.00 per ranch (see Table 2-26). Some of these operators also supplement ranch income with off-farm labor by one or more members of the family.

Large-Scale Operations

Approximately 40 percent of the operators in the planning unit are in the large category. The average large-scale rancher runs 264 AUs, requiring about 3,168 AUMs annually. As with the other size categories, all of the large operators also depend on other BLM, Forest, or state lands for forage during the year.

Table 2-26 includes data on the large-scale typical ranch budget. Annual gross income is approximately $252.01 per AU and net ranch income of $56.43 per AU or $14,898 per ranch. Large operators are typically more capable of diversifying to meet changing market conditions and are more likely to be fulltime operators.

f. Economic Summary

There are two basic categories of economic concerns to local ranchers: (1) the annual returns to their investments of land, labor, and capital (known as income); and (2) the long-term capital value of the ranch property (known as wealth).

TABLE 2-26 (concluded)

Item	Small (62 AUs)	Medium (105 AUs)	Large (264 AUs)
Changes in Inventory	-48.11	-121.02	-46.15
Ranch perquisities	9.83	4.82	2.69
Net ranch income (Returns to fixed factors--operator labor and management, and all capital.)	$70.35	$43.51	$57.34

Source: Data computed for nine livestock operators using the Planning Unit.

Notes: [a]See Glossary for definition

3. Overall Assessment

Deer

The proposed action continues heavy utilization of key deer winter forage (particularaly shrub species) on 184,738 acres (86 percent of the planning unit).

Composition of key and other desirable plant species such as bitterbrush and fourwing saltbush is expected to decline. The present deer population on 195,111 acres (about 92 percent of the unit) is estimated to be 996. They utilize 946 AUMs annually. The proposal provides for this plus an additional 800 AUMs. This would accommodate about 900 more deer for a total winter population of 1796.

On the remaining 8 percent of the unit (17,946 acres) there would be a deficit of 85 AUMs annually (equivalent to 95 deer). Thus, in this area, overutilization of crucial winter habitat would occur immediately.

On the larger area (92 percent), should the deer population continue to increase, the crucial winter range would be over used in about 5 years.

Optimal levels of mule deer (about 4,013) throughout the unit utilized about 4,242 AUMs in the recent past and is expected to reach that level in the next 5 years (Bowden, 1979). In the total unit area there would be about 1,930 less AUMs available than deer needs projected by DWR within the next 5 years. Deer winter range would rapidly begin to decline as carrying capacity is exceeded (after about 5 years), and the stressed deer herd would conflict with livestock with a consequent weight loss, low fawn survival rate, or die off. The increase in deer numbers could cause some increased use on private lands. This may result in damages to forage crops and hay stacks located on private lands. However, the degree of impact is not known.

Elk

The proposed action provides for increased forage of 111 AUMs on 31,257 acres (15 percent of the planning unit) for winter use by the 42 elk from the new elk herd on the Boulder Mountains. Sufficient vegetation (406 AUMs) would be provided for the 220 existing and the 42 additional elk. These 406 AUMs would also meet the projected long term needs for elk on public land in the unit. There is an expected decrease in key species of vegetation, but the impacts on the elk population is unknown.

Antelope

The proposed action provides vegetation (617 AUMs) sufficient for current antelope (750 animals). New water developments and the chaining would improve antelope habitat, but the proposed decline in the vegetation in the 122,275 acres (57 percent of the planning unit) of antelope spring range is expected to require a readjustment of grazing animal carrying capacity. The expected decline in key plant species on the 54,294 acres (25 percent of the planning unit) antelope winter range would also require an adjustment in the carrying capacity. The amount of adjustment is not quantifiable but is expected to be insignificant.

Sage Grouse

Reduction of key and other desirable plant species in the spring, during nesting and the critical brooding period, would adversely affect young sage grouse survival on 125,875 acres (59 percent of the public land in the plan-

3. Overall Assessment

The following effects could occur to livestock operators in the planning unit.

a. There may be an increase in grazing for 69 livestock operators.

b. Forty-three livestock operators would be reduced by an average of 44 percent. One of these operators would also be required to change season of use.

c. Twenty-three livestock operators would be reduced up to 100 percent initially, but gradually the allocation would increase, and after year 11, the allocation would return to current levels. Five of these operators would be required to change season of use and two of them would be required to change kind of livestock from sheep to cattle.

d. One operator would be required to change season of use only. (Note: Some livestock operators (totaling 99) are nonadditive since almost half run livestock in two or more allotments within the planning unit.)

e. Some private land owners could experience an unknown amount of loss of forage and hay from an increase of deer use on private lands.

The livestock operators that would be reduced or required to change season of use or kind of livestock would likely obtain the additional feed or make the required changes in order to continue their annual operation rather than sell it. This probably results from users' strong historical ties to the livestock industry as well as the geographic area.

4. Conclusions

The proposal would reduce livestock grazing for 56 of the 99 operators of the planning unit. In addition, six of the 56 operators would be required to change season of use. Two of the 56 livestock operators would be required to change kind of livestock from sheep to cattle. Overall the livestock forage allocation would be reduced by about 14 percent, while a 34 percent increase in AUMs presently used would be allowed.

The 56 livestock operators that would be affected by the proposal would likely obtain the needed feed and make the required changes in order to continue their annual livestock operation.

The degree of increase of deer use and associated damages on private land is unknown.

ANALYSIS OF IMPACTS ON SAGE GROUSE

Impacts	Rationale
NO LIVESTOCK GRAZING	
Two allotments, 475 acres (less than 1 percent of the planning unit).	
No impacts.	Sage grouse are not found in this area.
CONTINUE EXISTING CONTINUOUS-SEASONAL GRAZING (Spring, Fall, Winter)	
Fifteen allotments, 126,314 acres (59 percent of the planning unit). All allotments except Lyman and Hector Hollow support sage grouse.	
Sage grouse inhabit 13 of these 15 allotments (122,275 acres or 38 percent of the planning unit). Sage grouse numbers may decline. The extent and magnitude are unknown.	Possible increased grazing during the spring could reduce key and other desirable forage species and affect vegetation needed for sage grouse. Succulent green forage is critical during the brooding season (Jarvis, 1974). Without succulent forage, the survival rate of sage grouse chicks could decline.
IMPLEMENT TWO-PASTURE REST-SEASONAL GRAZING AND CONSOLIDATION OF ALLOTMENTS (Spring)	
One allotment, 21,159 acres (10 percent of the planning unit).	
The sage grouse population is expected to increase by an unknown number.	Increased supplies of succulent vegetation (see Vegetation section of this chapter) and better distribution of water would provide better habitat for sage grouse.
CONTINUE WITH CONTINUOUS-SEASONAL GRAZING WITH ADJUSTMENT OF GRAZING ALLOCATION (Winter)	
Eleven allotments, 54,284 acres (25 percent of the planning unit).	
No adverse impacts are expected.	The vegetation would improve in vigor, quantity, and quality under the proposal (see Vegetation section of this chapter).
CONTINUE WITH CONTINUOUS-SEASONAL GRAZING ADJUSTED BY UTILIZATION (Winter)	
Nine allotments, 10,543 acres (5 percent of the planning unit).	
No impacts.	Sage grouse are not found in this area.
CONTINUE WITH CONTINUOUS-SEASONAL GRAZING WITH ADJUSTMENT OF SEASON (Winter)	
One allotment, 272 acres (less than 1 percent of the planning unit).	
No impacts.	Sage grouse are not found in this area.

K. WILDERNESS

1. Introduction

This section describes the anticipated impacts that the proposed action would have on wilderness values (i.e., on roadless inventory units presently undergoing wilderness review) within the Parker Mountain Planning Unit.

2. Analysis of Impacts

The following table shows the possible impacts and rationale for predicting the impacts to wilderness values.

ANALYSIS OF IMPACTS ON WILDERNESS

Impacts	Rationale
The Grover Allotment within the Continue Continuous-Seasonal Grazing With Adjustment of Grazing Allocation (Winter) component could be affected. The area involved includes approximately 791 acres (0.37 percent of the planning unit).	
No impairment of wilderness suitability from the exclosure would occur in Roadless Inventory Unit UT-050-221.	One exclosure is proposed within the 19,720 acre Roadless Inventory Unit UT-050-221, which is presently undergoing wilderness review. Range developments are man-made intrusions that would detract from naturalness and could affect the suitability of an area for Congressional wilderness designation (Draft Interim Management Policy and Guidelines for Wilderness Study Areas, 1979). Easily removable or visually unobtrusive range developments such as fences, water troughs, exclosures, and pipelines would probably not impair wilderness suitability. Permanent, visually obvious range developments such as large reservoirs could impair wilderness suitability. No range development determined to impair wilderness suitability could be authorized within a roadless inventory unit undergoing wilderness review (Draft Interim Management Policy and Guildelines for Wilderness Study Areas, 1979).

3. Assessment

One exclosure is proposed within the 19,720 acre Roadless Inventory Unit UT-050-221 which is presently undergoing wilderness review.

BLM policy and regulations prohibit new range developments that would impair a roadless inventory unit's suitability for Wilderness designation while the unit is undergoing wilderness review. Permanent, obvious developments which would affect an area's naturalness would affect its suitability for designation and would not be authorized unless BLM first determines that the area lacks wilderness character. Any areas that BLM determined to have wilderness character would require congressional action before developments affecting wilderness suitability could be authorized. No developments which would impair wilderness suitability would be authorized within roadless inventory units until they are released from the wilderness review process.

4. Conclusion

The proposal would not affect wilderness designation suitability within in the planning unit.

M. SOCIOLOGY

1. Introduction

This section describes the anticipated impacts on the social conditions. Only the attitudes and expectations of local livestock operators and others who have strong historical ties to the livestock industry would be affected.

2. Analysis of Impacts

The following table shows the probable impacts and rationale for projecting the impacts on attitudes and expectations.

ANALYSIS OF IMPACTS ON SOCIAL ATTITUDES AND EXPECTATIONS

Impacts	Rationale
People in all of Wayne County and the Grass Valley part of Sevier and Piute Counties would be affected. Nearly all the population of these areas are involved with or have historic or sentimental ties to the livestock industry.	Past experience has shown that downward adjustments in grazing allocation causes ill feelings against the government among not only livestockmen, but other residents, including the youth.
The proposed reduction of livestock forage allocation from 12,997 AUMs to 11,180 AUMs (14%) would be highly resented. Even though a grazing level 35 percent above the actual use of the past three or four years is proposed, this would, in some cases, benefit the next generation of permittees and would have no redeeming values in the current livestock operators' opinion.	
The proposal to increase wildlife use from 2,039 AUMs to 2,839 AUMs (39%) would indicate to the local residents that livestock are being replaced.	
The implementation of the allotment management plans and change in forage allocation would be perceived as additional government intervention; it would be felt that outside influences are dictating local programs. Litigation against BLM is very likely.	

CHAPTER 6
RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF MAN'S ENVIRONMENT AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The allocation of vegetation forage to big game animals, increases or decreases in livestock forage allocation, and range developments would derive short-term values from the environment, and affect its long-term productivity. In this statement, short-term is considered as 20 years or less after implementation, and long-term is beyond 20 years. The long-term point in time when effects are measured is set at approximately 30 years from the decision point.

Present vegetation forage conditions are expected to deteriorate on 60 percent of the planning unit (126,789 acres) as a result of overutilization of key forage plants during the critical spring growing period. The short-term use of grazing is expected to increase from actual use of 64 percent of allocation to 100 percent of allocation and would tend to reduce all measured vegetation sub-category parameters over the long-term.

Range developments would cause a short-term reduction in vegetation on about 4,872 acres. Over the long-term vegetation forage production would be enhanced because of these developments, mainly because of the improved livestock and wildlife distribution.

The change in grazing management on 40 percent of the area, including the proposed range developments (sagebrush and pinyon-juniper control, fencing, and water developments), would slightly increase the amount of livestock forage (AUMs) being produced on that area during the short-term. By continuing this management on the area, the increased amounts of forage could carry over into the long-term period of productivity.

The continuation of present management practices on 60 percent of the area would supply the short-term vegetation forage needs but, nevertheless, present conditions in this portion of the planning unit are expected to deteriorate over the long-term.

The elements of the proposal that propose heavier livestock grazing in the spring season could increase competition for the desirable vegetation forage species between wildlife and domestic livestock enough to reduce wildlife numbers in the long-term. Sage grouse, deer, and prairie dogs could be adversely affected in the long-term by this competition on several areas of the planning unit.

The increased allocation of vegetation forage for wildlife and more intensive livestock grazing management would generally improve wildlife habitat for most species. Total populations of deer are expected to increase, with elk and antelope populations remaining static, within a few years of implementation of this proposal.

Fish habitat is expected to decline on 10 miles of stream as a result of continued livestock grazing.

The present soil erosion conditions on most of the planning unit would not change very much. Proposed range developments, such as fences, pipelines, reservoirs, and chaining, would cause a very slight increase in soil movement for a short period (1 to 3 years), but the effect is minor since it would cover only approximately 2 percent of the planning unit. This accelerated erosion would cause an increase in sediment yield for a short period of 1 to 3 years. (Sediment yield would be reduced in the long-term.) The long-term reduction would be much more significant than the short-term increase.

Likewise, overall water quality would be improved in the long-term even though there would be a slight increase in sediment yield and resultant lowering of surface water quality for a short period of 1 to 3 years in the few streams involved.

b. Administration, Control of Unauthorized Use, and Monitoring

These would be as described in Chapter 1 for the proposed action.

c. Implementation

Implementation procedures would be as described in Chapter 1 for the proposed action. Table 8-4 shows the sequence of implementation by year for this alternative.

3. Design, Operation, and Maintenance Considerations for Development

Design, operation, and maintenance considerations for development would be as described in Chapter 1 for the proposed action.

4. Environment Impacts of the Alternative

Analysis indicates that there would be no significant impacts on climate, air quality, geology, topography, paleontological resources, historical resources, and wilderness values. Therefore these resources are not discussed further in this alternative. Other resource components are introduced and analysis procedures and assumptions given for each resource component.

The impact analysis assesses the impacts that would result from constraining livestock grazing by reserving vegetation production for big game and recreation.

a. Soils

(1) Introduction

This section analyzes the impacts to the soils under the Maximum Constraints of Livestock Grazing alternative. The impact to sediment yield and soil erosion would be minimal because the vegetation ground cover is not expected to change significantly.

(2) Analysis of Impacts

The following table shows the projected impacts on sediment yield and soil erosion conditions and the rationale for the projections.

ANALYSIS OF IMPACTS OF "FEED CHANGE" ON RANCH INCOME

Impacts

a. Operator Impacts: Change in Dollars per AU

	Size of Operation		
	Small	Medium	Large
Cash Receipts	--	--	--
Cash Expenses	$+0.17	$ - 7.41	$+1.25
Net Income	-0.17	+ 7.41	-1.25
Net Returns Per Ranch	$-60	$+776	$-330
Change in Wealth Position:	$-60	$+490	$-60

b. Local Economic Impacts

Change in total earnings of range livestock sector	$+19,960

Other Impacts

Change in Hay Purchases	$-28,600
Change in Government Fees	+2,349
Change in non-fee grazing costs	+8,580
Change in feeding costs	-2,288

c. Public Sector Impacts

	State
Income Tax	$+1,218
Sales Tax	+686

	Local
Sales Tax	$ +131

Rationale

Due to the distribution of reductions and increased use of AUMs under this alternative, only the medium sized operations would show a reduction in cash expenses and increase in net income. Cash receipts would not change because herd size remains constant under this scenario.

The "feed change" scenario would affect only the level of earnings, not output levels. The structure of the input-output model is changed to reflect the changes in the "range livestock" sector. Because of greater efficiency and increased use of AUMs in "range livestock" operations, earnings would increase. This reflects the importance of the increased use of available AUMs on the planning unit by the medium operations relative to the reduced allocation to small and large operators. This is also apparent under "Other Impacts" to the local economy.

The increased level of use from the present situation would prevent the loss of 1,288 AUMs. This use would prevent the loss of permit values of about $28,950 (Based on a value of $22.50 per AUM) if the BLM were to revoke them for non-use.

to Chapters 1, 2, and 3. The assessments and conclusions included in the impact for analysis for this alternative cover all six components. The changed component involves 126,314 acres (59 percent of the planning unit). A detailed listing of existing and initial alternative statistics are included in Appendix VIII-5. The long-term use for the changed component would be the same as the initial use. The other five components' Long term use is shown in Appendix I-1. Overall, 41 percent of the forage would be allocated to livestock, 19 percent to wildlife, and 40 percent for other uses. The same range developments would be required as listed for the Continue Existing Continuous-Seasonal Grazing component described in Chapter One.

2. Support Requirements

Labor, development costs, administration, control of unauthorized use, monitoring, and implementation would be the same as described in Chapter One.

3. Design, Operation, and Maintentance Considerations for Development

Design, operation, and maintenance considerations for development would be as described in Chapter 1 for the proposed action.

4. Environment Impacts of the Alternative

Analysis indicates that there would be no significant impacts on climate, air quality, geology, topography, paleontological resources, historical resources, and wildernes values. Therefore these resources are not discussed further in this alternative. Other resource components are introduced and analysis procedures and assumptions given for each resource component.

The impact analysis assesses the impacts that would result from changing utilization on the changed component and the five other components in the proposed action (Chapter 3).

a. Soils

(1) Introduction

This section analyzes the impacts to the soils under the adjustment of use alternative. There would be an impact to sediment yield and soil erosion because the vegetation ground cover is expected to change.

ANALYSIS OF IMPACTS ON SEDIMENT YIELD

Impacts	Rationale
CONTINUE EXISTING CONTINUOUS-SEASONAL GRAZING WITH ADJUSTMENT OF UTILIZATION (Spring, Fall, Winter)	
Fifteen allotments, 126,314 acres (59 percent of the planning unit).	
The present sediment yield is estimated to be 79.8 acre-feet per year. The sediment yield would be reduced by as much as 12 acre-feet per year. These conditions are expected to remain constant for the next 20 years.	Sediment yield is a function of surface geology, soils, climate, runoff characteristics, topography, land use, upland erosion, channel erosion, and ground cover. The vegetation ground cover would increase from the current 17 percent to 23 percent.

j. Economics

(1) Introduction

The alternative action would reduce the proposed 11,180 AUMs to 6,480 AUMs. This represents a reduction of 22 percent from the existing use of 8,285 animal-unit months. Two scenarios are analyzed under income impacts. The first considers a change in herd size and, in the second, the herd size is constant and the effect of purchasing additional feed is assessed.

(2) Analysis of Impacts

The specific impacts on operators are identified by assessing changes in dollars per AU for cash receipts, cash expenses, and net income. This is done for three scales of operation: small, medium, and large.

The regional economic impacts are separated into direct (that is, the impacts on the range livestock industry itself), secondary (impacts on other sectors), and total impacts. The impacts include changes in output and earnings. An estimate is also made of the impact on state income tax, sales taxes for local sales, and property taxes.

ANALYSIS OF IMPACTS OF "HERD CHANGE" ON RANCH INCOME

Impacts

Operator Impacts: change in Dollars per AU

Scale of Operation

	Small	Medium	Large
Cash Receipts	$- 8.24	$-3.05	$-11.46
Cash Expenses	- 3.49	- .73	-3.69
Net Return	- 4.75	-2.32	-7.77
Net Return per Ranch	$-288	$-243	$-2,051
Change in Wealth position	$-171	$- 68	$-765

Regional Economic Impacts:

	Direct	Indirect	Total
Output	$-46,576	$-56,838	$-103,414
Earnings	-12,732	-22,636	- 35,368

Public Sector Impacts

	State
Sales Tax	$-1,221
Income Tax	$-2,157

	Local
Sales Tax	$- 229
Property Tax	$- 247

Rationale

Due to the fact that the livestock allocation under this alternative is below present use levels, the average operator in all three categories would lose feed on the planning unit.

Under this scenario, the alternative would have the effect of reducing cash receipts, cash expenses, and net returns.

The effect of the decreased net income is reflected in the other local economic impacts and the public sector impacts. Output, earnings, and tax collections all are reduced.

Due to the actual loss of AUMs by the operators, all three ranch sizes also showed reductions in their wealth position. The total wealth reduction for all operators is $105,750.

ANALYSIS OF IMPACTS OF "FEED CHANGE" ON RANCH INCOME

Impacts

Operator Impacts: Change in Dollars per AU:

	Size of Operation		
	Small	Medium	Large
Cash Receipts	--	--	--
Cash Expenses	$+2.07	$+ .47	$+2.59
Net Returns	-2.07	- .47	-2.59
Net Returns per Ranch	$-126	$- 50	$-683
Change in Wealth Positions	$-171	$- 68	$-765

Local Economic Impacts:

Change in total earnings in range livestock sector	$-30,439

Other Impacts:

Change in Hay Purchases	$+39,130
Change in Government fees	- 3,213
Change in non-fee grazing costs	-11,739
Change in feeding costs	+ 3,130

Public Sector Impacts

	State
Sales Tax	$-1,051
Income Tax	$-1,857

	Local
Sales Tax	$-197

Rationale

Due to the fact that the livestock allocation under this alternative is below present use levels, the average operator in all three categories would lose feed on the planning unit.

The effect of this on all ranch sizes would be to increase ranch expenses per AU with no effect on cash receipts.

The effect of the increased costs and decreased net income is reflected in the other local economic impacts and the public sector impacts.

Due to the actual loss of AUMs by the operators, all three ranch sizes also showed reductions in their wealth positions. Relatively large reductions in both net returns per ranch and wealth position are experienced by large operators.

(3) Overall Assessment

Present net cash income per AU for small, medium, and large operators is $70.35, $43,51, and $56.43 respectively. Net ranch income is $42.68 for small, 45.54 for medium, and $148.98 for large size operations.

It is estimated that this alternative would produce the following changes in average ranch income:

	Net Ranch Income		
	Change	Total	Percent Change
Feed Change Scenario			
Small	$-126	$4,142	-3.0
Medium	$- 50	$4,504	-1.1
Large	$-683	$14,215	-4.6
Herd Change Scenario			
Small	$-288	$3,980	-6.7
Medium	$-243	$4,311	-5.3
Large	$$2,051	$12,847	-13.8

In both scenarios the loss of AUMs would represent a decreased wealth position of $171, $68, and $765 for the small, medium, and large operator, respecitvely.

Regional economic impacts under the "feed change" scenario include a $30,439 decrease in total earnings for the range livestock sector, a loss of sales and income tax for revenues to the state of about $2,908, and a loss of $197 in local sales tax revenues.

Under the "herd change" scenario, regional impacts would be: a decline of $12,732 in earnings from the range livestock sector and $35,368 in total earnings; about $3,378 of lost sales and income tax revenue to the state; and an estimated loss of $476 sales and property taxes to the local economy.

The local economy lacks economic diversity, therefore, noticeable decreases in the livestock sector are more keenly felt in the other sectors. It should also be recognized that impacts to individual livestock operators may vary widely from those indicated by this study.

(4) Conclusion

Implementation of this alternative would have a significant negative impact on the operators (2.2 to 5.3 percent decrease in ranch income) and the local economy (an 5.6 percent to 6.5 percent decrease in Wayne County total earnings).

k. Sociology

(1) Introduction

This section describes the anticipated impacts on the social conditions. Only population, attitudes, and expectations would be affected.

(2) Analysis of Impacts

The following table shows the probable impacts and rationale for projecting the impacts on attitudes and expectations.

ANALYSIS OF IMPACTS ON SOCIOLOGY

Impacts	Rationale
People in all of Wayne County and in the Grass Valley portions of Sevier and Piute Counties would be affected.	
Attitudes and Expectations	
The reduction of livestock forage from 12,997 AUMs to 6,480 AUMs (50 percent) would be highly resented and would surely lead to litigation. This alternative would allow wildlife use to increase from 2,039 AUMs to 2,950 AUMs (47 percent). This would indicate that the forage is still available for livestock, with some left over. It would be felt that outside influences were dictating local policy and programs which would be perceived as additional government intervention.	Past experience has shown that downward adjustments in grazing allocation cause ill feelings against the government among not only livestockmen, but other residents, including the youth.
Population	
If the alternative is implemented, 19 ranchers would probably sell their operations and, as many as 53 people may leave the area.	The number of jobs in the Wayne County area are very limited, and unemployment is high. There is no other existing industry which could provide employment in the Wayne County area, thus it is assumed that people who would lose jobs in agriculture would be forced to seek employment outside the area.
Prairie dog numbers and towns could create a safety hazard to livestock, livestock operators, and other recreation horseback riders.	Prairie dog burrows can sometimes be a hazard to cattle and horses. The size of the burrow, in diameter and depth can let the hoof of a horse or cow enter causing the animal to stumble or possibly break its leg. Prairie dog holes pose the greatest threat to horses and riders pursuing livestock.

APPENDIX III-3

A. Input-Output Analysis

To trace the direct effects of the proposal on range livestock operations to the impacts on the local economy (i.e., Wayne County), an input-output analysis was employed. In its most basic form, an I-O model consists of three components: a transaction-of-flow table; a set of direct coefficients; and a set of direct and indirect coefficients. Each of these will be explained briefly with special reference to the way it relates to the impacts being studied herein.

Consider a very oversimplified three-sector model including (1) range livestock (2) manufacturing, and (3) services. (The actual model used in this study has 18 sectors, of which range livestock represents the focus.) The flow table (shown on Table III-3-1) identifies the flows for each sector to every sector (Xij, the interindustry flow), from each sector to those who consume the final output (i.e., Fi, the final demands), and the flow of primary inputs including labor and capital to each sector and to final demand (Pj).

Reading down any row in the table indicates the amount purchased by any sector (or by final demand) from any other sector (or from primary inputs). For example, the amount purchased by range livestock from manufacturing is X_{21}. Reading across the table indicates sales made from any sector (in primary inputs) to any other sector (in final demand). For example, the amount purchased by range livestock from services would be X31.

Finally, total inputs (the column totals) and take outputs (the row totals) are shown in the margins. For the primary sector, the amount purchased must equal the amount sold.

The direct coefficients matrix indicates the input requirements from sector 1 per dollar of output of sector j. These coefficients (aij) are relevant only for the purchasing sector, and are found by dividing each flow by the relevant column total, i.e., $aij = \frac{xij}{xj}$ for all i and j. The direct coefficient for primary inputs (pij) are found in the same way, i.e., $pj = \frac{pj}{xj}$ j = 1,2,3, These coefficients are outlined in Table III-3-2.

Again consider sector 1, the range livestock industry. For each dollar of livestock output a_{11} dollars of input is required from the range livestock industry, a_{21} dollars from manufacturing, and a_{31} from services. In addition, p1 dollars of primary inputs are required.

From these data the direct effect on output of a sector caused by a change in final demand (ΔF) for output from that sector can be determined as: $\Delta Xj = (aij)(\Delta Fj)$.

But this analysis is incomplete because it fails to include a series of indirect effects. For example, if final demand for range livestock (F_1) changes, there would be direct effect changing the output of that sector. But note that this sector buys output from all sectors, so when range livestock output changes, it would cause a change in the outputs of all other sectors.

In fact, a change in the final demand for output of one sector would lead to multiple changes in demand for all sectors. The single most advantageous feature of the input-output technique is its ability to simultaneously determine the total effect (both direct and indirect) on all sectors. The approach is outlined as follows:

Define the final demands as a column vector F= (F1, F2, F3), ouput as a column vector X = (X1, X2, X3), and the direct coefficient matrix as A = (aij), i, j = 1,2,3. Now total output X will equal the amount necessary to

APPENDIX III-3 (continued)

B. Impact of the Proposal on Per Animal Unit Farm Cash Recipts, Expenses, and Net Income

To determine the impact of the proposal on the financial operations of area ranchers, detailed farm budget data were obtained from nine livestock operators in Wayne County, three each in small, medium, and large-size classes. Summary data from these budgets for each operating scale are presented in Table 2-26.

The effects of the proposal on ranch receipts, expenses, and income are estimated in the following way:

1. The increase in actual AUMs use after implementation of the proposal is estimated at 2,895 (i.e. from 8,285 before the action to 11,180 afterward).

2. The increased animal and wool production is determined from the change in AUMs, making appropriate adjustments for differing animal types (i.e., cattle, sheep, etc) and grazing season. These changes are then evaluated using partial budgeting techniques and are based on the following assumptions:

a. Increased production is valued as follows:

Cull ewes -- $15.00 per head;
Lambs -- 62.00 per head;
Heifer calves- 0.70 per pound (400 lb. average weight);
Bull calves -- 0.75 per pound (450 lb. average weight);
Wool -- 0.74 per pound (10 lbs. per mature animal).

b. Assumptions concerning relevant operating expenses include:

Hay -- $65.00 per ton (delivered); from outside local area.
Feeding costs -- $4.00 per ton of hay;
Grazing fees -- $1.50 per AUM;
Non fee costs of grazing -- $5.00 per AUM.

The effects of the proposed "feed change" scenario on the income statement of livestock operators of different size are outlined in Table III-3-3. These data are reported in terms of dollars per animal unit (AU). The effect of the action on all livestock operators would be to reduce cash expenses per AU with no effect on cash receipts. The reduction in cash expenses would be greatest for medium size operators (a decrease of $7.41 per AU or 3.8 percent). The effect on net income would be more significant--an increase of $7.41 per AU representing an increase of 17.0 percent.

For both the small and large operators the effect of the proposal on net income per AU would be relatively modest, although in both cases it would be significantly above that for the medium size operator. In the case of the small operator, the proposal is projected to increase net income per AU from $70.35 to $73.89, an increase of 5.0 percent. For large operators, net income per AU is projected to increase from $56.43 to $59.81, an increase of 6.0 percent.

C. Local Economic Impacts of Proposal

The "feed change" scenario would affect only the level of earnings, not output levels. The structure of the input-output model is changed to reflect greater efficiency in the "range livestock" sector. Define total regional output as X_r, earnings as Y_r, and the earnings-output multiplier as Y (where $Y = Y_r/X_r$). Because of greater efficiency in "range livestock" operations, earnings would increase in the amount: $(Y^*-Y)\ X_r$

The level of earnings is given by: $Y_r = YX_r$

$$\$717,324 = (0.342)\ 2,097,440$$

After the proposed action is fully implemented, the multiplier would increase to 0.356, and the level of earnings would be $Y^*_r = Y^*Xr$

$$\$746,689 = (0.356)\ 2,097,440$$

So earnings would increase by $29,305. Equivalently, this change (i.e., ΔY_r) could be determined as $\Delta Y_r = (Y^* - Y)\ \underline{X_1}$ or

$$\$29,365 = (0.356 - 0.342)\ 2,097,440$$

Of the total change in earnings, part would be directly received by the "range livestock" sector and part would accrue to other sectors in the local economy. The part accruing to "range livestock" (ΔY_1) is given by

$\Delta Y_1 = Y\alpha X$ where α is the appropriate element from the $(I-A)^{-1}$ matrix. Making appropriate substitutions yields the change in income to the "range livestock" sector

$$\Delta Y_1 = (0.356)(1.053)(29,365)$$

The earnings change in other sectors (ΔY_2) is given by

$$\Delta Y_2 = \Delta Y_2 - \Delta Y_1$$

or

$$\$29,365 - \$11,012 = \$18,353$$

The income multiplier (ky) defined as:

$$\left[\frac{\text{Direct and indirect income change}}{\text{Direct Income Change}}\right] -1$$

After implementation of the proposed action, the AU multiplier would increase from 1.769 to 1.806, i.e.,

$$1.860 = \left[\frac{11,012 + 18,353}{11,012}\right] -1$$

The impacts associated with the "herd change" scenario are broader because both output and earnings in the livestock sector would change. Final output from range livestock would increase by $75,799 which would result in a total output change of 2.338 X 75.999 or $177,171.

Total county earnings would increase by $60,592, determined as the product of the output change and earnings-output ratio (i.e., $171,171 X $.345 = $60,592). Of that total earnings change, $21,820 would accrue to the range livestock sector and the remainder, $38,771 would received indirectly by other sectors in the region.

The proposed action is expected to increase area employment by 22, of which 9 would be in the range livestock sector and 13 in other industries. Assuming the constant population per job ratio of 2.8226, county population is projected to increase by 62.

GLOSSARY (continued)

Exchange of Use. An agreement made with an operator having ownership of control of private land interspersed and grazed in conjunction with surrounding federal range. This agreement specifies the carrying capacity and gives the Bureau control of the nonfederal land for grazing purposes (see also percent federal range).

Fair Condition. A range is in fair condition if the plant composition is 15 to 39 percent of desirable and intermediate species with 5 or more percent made up of desirable species. Soil surface factor (SSF) is less than 60. Also, those ecosystems where the composition comprises 60 percent or more of intermediate species and less than 5 percent desirable species are present will be rated "fair" when SSF is less than 60.1. The actual percent compositions by species is determined by paced transect and ocular reconnaissance precedures. Soil surface factor is determined by an onsite investigation and evaluation.

Food Chain. The path of food energy transfer from producers to consumers.

Forage. Vegetation of all forms available and of a type used for animal consumption.

Forage Trend. The direction or apparent change in range condition class is rated as being improving, declining, or static. Trend is computed from the following factors: composition of key species, total cover of key species, number of seedings of key species, and percent litter in entire plot. Any change in range trend is reflected by a corresponding rise or decline in the trend index.

Forb. A broadleaved herb other than grass.

Good Range Condition. A range is in good condition if plant composition is 40 percent or more of both desirable and intermediate species with at least 20 percent of the composition made up of desirable species and has a SSF less than 40. Species composition is determined using paced transects and ocular reconnaissance procedures and the SSF is determined directly through field investigation and evaluation.

Grazing Capacity. See carrying capacity.

Grazing Cycle. The number of years required to apply all of the treatments in the grazing formula to each pasture of the allotment. It is the completion of 1 full cycle of yearly schedules back to the point of beginning.

Grazing Treatments. The grazing of animals in a prescribed manner or system.

Habitat. A specific set of physical conditions that surround the single species, a group of species, or a large community. In wildlife management, the major components of habitat are considered to be food, water, cover, and living space.

Hedging. The persistent browsing of terminal buds of browse species causing excessive lateral branching and a reduction in upward growth.

Herb. A seed-producing plant that does not develop persistent woody tissue.

Herbage. The fleshy, edible parts of plants.

Infiltration. The flow of a liquid into a substance through pores or other openings.

Infiltration Rate. Characteristic describing the maximum rate at which water can enter the soil under specific conditions including the presence or excess water.

Key Species. A plant that is a relatively or potentially abundant species. It should be able to endure moderately close grazing, and serve as an indicator of changes occurring in the vegetational complex. The key species is an important vegetation component that if overused, will have a significant effect on watershed conditions, grazing capacity, or other resource values. More than one key species may be seleted on an allotment. For example, a species may be important for watershed protection, and a different species may be important for livestock forage or wildlife forage, etc.

License. See permit.

Litter. A surface layer of organic debris consisting of freshly fallen or slighly decomposed organic material. Litter is important because it covers and protects the soil, reduces runoff rates, increases infiltration, and it yields organic matter which improves soil fertility.

Livestock Forage Condition. The present state of forage, quantity and quality, produced on the range available to grazing livestock. Forage condition is based on plant species composition and plant desirability relative to livestock preferences. It is rated as excellent, good, fair, and poor.

Livestock Operators. A person or organization legally permitted to graze livestock on public land.

Management Framework Plan (MFP). Land use plan for public lands administered by BLM which provides a set of goals, objectives, and constraints for a specific planning area; a guide to the development of detailed plans for the management of each resource.

Multiple-use Recommendations. Those recommendations contained in the MFP which attempt to resolve conflicts among single uses.

Non-point Source Pollution. Pollution from a diffuse source of gross area.

Ocular Reconnaissance Survey. A forage survey method which inventories vegetation by estimating total forage density, percent composition by species and total usable forage in a given range type to determine the carrying capacity for livestock and wildlife.

Pasture. A subdivision of a grazing allotment.

Pellet Groups. A group of fecal material defecated by an animal (particularly big game) at one time.

Percent Utilization. Grazing use of current growth, usually expressed as a percent of weight removed and most often related to key species.

Perennial Plant. A plant that has a life cycle of 3 or more years. Because of their longevity, it is desirable to base management on these species.

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